BOROUGH OF WHITEHAVEN.

# ANNUAL REPORT

— OF —

## THE MEDICAL OFFICER OF HEALTH,

— AND —

# ANNUAL REPORT

— OF —

## THE SCHOOL MEDICAL OFFICER,

## FOR THE YEAR 1919.

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MEDICAL OFFICER OF HEALTH AND
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# TO THE WHITEHAVEN TOWN COUNCIL.

Town Hall,
Whitehaven,
*22nd March*, 1920.

Gentlemen,

I beg to submit my Annual Report for the year 1919. The form of the Report is to a great extent prescribed by the Ministry of Health and a recent memorandum has been issued on the subject. I fully realise the importance of complying with the requirements of the Ministry in this matter, and have done so to the best of my ability. As you are aware, however, I did not take up my duties until April 15th, 1919, and have not yet the intimate local knowledge which would be required to be able to give full and exact information under every heading. I have freely availed myself of the knowledge of local conditions which is possessed by my fellow officials, especially the Borough Surveyor, and my best thanks are due to them for the very willing and invaluable assistance which they have given me.

I should like also to express my thanks to Dr. J. F. Muir, from whom I took over the work, for his great kindness and courtesy. I have consulted him on more than one occasion since coming here and he has always shown himself most willing to assist me with information and advice.

Following the policy which I proposed to adopt when I took up my duties, I have devoted myself to carrying on the routine work and endeavouring to make myself thoroughly acquainted with local conditions rather than to attempting to make innovations or improvements. There are many matters in which I realise that action is necessary but to which I think it better to give fuller consideration before attempting any action or making any recommendations. I am anxious that any recommendations which I make to you should be based on a thorough knowledge and careful consideration of all the circumstances. Also I have found it necessary to devote a great amount of attention and thought to housing matters, with the result that some branches of the work have received less attention than I should have wished. These branches I hope to take up one by one as opportunity arises.

The scope and practice of Public Health work or Preventive Medicine have in the last ten or fifteen years undergone such an extension and, almost, transformation that it may be of interest to the Council if, before proceeding with my report, I make some general remarks on this subject.

Not much more than ten years ago, Public Health Work was almost confined to work in regard to housing, the prevention of nuisances, and efforts to control certain infectious diseases. Attention was concentrated on the environment, and the individual was scarcely admitted to be any concern of the Public Health Authority, except in so far as he was subjected to isolation or other restrictions, if his illness constituted a danger to his neighbours. Although cases of scarlet fever and some other diseases were treated in hospitals established by the Sanitary Authority, this was done with a view to isolation rather than treatment.

On these principles much useful work was done, but it gradually came to be realised that no hard and fast line could be drawn between curative and preventive medicine and that the health of the individuals who compose it is a matter of concern for the community.

In the first place, the cure of a disease in an individual may be a means of preventing another disease in the same individual or of preventing the same disease in other individuals. For example, the cure of adenoids and enlarged tonsils in a child may prevent his developing Tuberculosis, with the probability of his infecting others. Again, the cure of Tuberculosis or of Venereal Disease in one individual diminishes the risk of others being infected with these diseases. Add to that the obvious fact that the Public Health means nothing more nor less than the health of the citizens who compose the Public, and I think it is clear that the community is directly interested in the health of every constituent member, from the cradle to the grave.

Looking at it purely from the financial point of view (though I am far from suggesting that it should be looked at from this point of view only) healthy citizens are an asset to the state and add to its prosperity. Unhealthy citizens are a less valuable asset and may even be a burden.

It has therefore come about that the community has interested itself more and more in the individual, and has taken up and paid for, out of public funds, one branch after another of curative medicine.

Thus we have, among other things, Medical Inspection and Treatment of School Children, Maternity and Child Welfare Centres, a Public Midwifery Service, Tuberculosis Dispensaries, Clinics for the Treatment of Venereal Diseases, and the National Insurance Medical Service. In addition, we have voluntary

Hospitals and District Nursing Associations financed by public subscription, which, no less than municipal institutions, are an indication that the community recognises its duty with regard to the health of its members.

The manner in which this manifold public medical service has grown up, piece-meal, has resulted in a bewildering multiplication of Public Authorities and Voluntary Associations dealing with different aspects of the Health Problem, with more or less overlapping and waste.

Until recently nearly every Government Department had Public Health functions. By the creation of the Ministry of Health centralisation of these functions has been, in great measure, effected, but unification of the local authority has not as yet taken place.

Even in regard to matters which have always been regarded as purely sanitary matters there is overlapping of local authorities. For example, although the Town Council is the local sanitary authority, the administration of the Food and Drugs Act is in the hands of the County Council, and the Vaccination authority is the Board of Guardians.

When we come to the sphere of medical treatment, however, the position is absolutely chaotic. Thus, if a person is a pauper he may receive treatment at home or in hospital under the auspices of the Board of Guardians. A sufferer from carious teeth, if he is of school age, receives treatment at the hands of the Education Committee, but if he is not of school age or if his disease happens to be, say, Bronchitis, he is left to fend for himself. If he is an infant he will be visited by the Council's Nurse, and for certain complaints may receive treatment from the Medical Officer at the Child Welfare Centre. If he has Tuberculosis or Venereal Disease, whatever his age, he will be treated by the County Council. If he is over sixteen years of age and a manual worker or in receipt of an income of less than £160 a year he will receive treatment, no matter what his illness, from the Insurance Committee. If he is under sixteen, but has left school, and his disease is neither Tuberculosis nor Venereal Disease, and he is not a pauper, all public authorities wash their hands of him.

Again, if he requires an operation, say for appendicitis, and is above the social rank which is expected to take advantage of a voluntary hospital, he must as a rule go to an expensive nursing home and pay a surgeon's fee, expenses which he is in many cases unable to meet. If he requires nursing and is of the class usually attended by the District Nurses he will be nursed by the District Nursing Association, but if he does not happen to belong to this rank in the social scale he must either do without expert nursing or pay for the whole-time services of a private nurse for the time being.

The Council have recently been advised by the Ministry of Health to provide nursing assistance for cases of Measles in children under five years of age and for cases of Influenza at any age. In the absence of some very thorough scheme of co-operation with the District Nursing Association this might very easily result in two nurses visiting the same house, the Council's Nurse to attend to a case of Influenzal Pneumonia and a District Nurse to attend to another member of the family, suffering from Pneumonia not of Influenzal origin.

I do not by any means intend to indicate that I disagree with the recommendations of the Ministry of Health. No doubt, in the present state of development of the Public Health service, this is the proper policy for the Ministry to adopt. But I do feel that at present we are not attacking the problem in the right way, and that the real reason for providing nursing assistance to anyone is the simple fact that he is ill and requires nursing, and not the fact that he is suffering from any particular disease.

It is clear, then, that the present state of confusion and overlapping is both more expensive and less efficient than a simpler and more logical system would be. Absurd as the existing state of matters seems, when set out as I have stated it above, it is the result of a natural, though haphazard, process of growth, one branch after another of public medical work having been taken up as one aspect after another of the health problem has forced itself on public attention. The time seems to have now come when a unification of the whole system should be attempted, and it seems to me that two things are required (1) that there should be for each area one, and only one, local authority dealing with all health matters, and (2) that the principle should be recognised, that the health of each and every individual is a matter of interest and concern to that local authority.

I look forward to the day when there shall be, in every considerable centre of population and under the administration of the local authority which is responsible for sanitation, a Public Centre or Clinic to which any citizen may go, whatever his age, social status or occupation, and whatever may be the disease from which he is suffering ; where his condition will be diagnosed and where he will either receive treatment or be advised as to how he may best obtain it ; from which nurses will be sent out to nurse those who require nursing, whatever may be the nature of their illness ; and in connection with which hospital beds will be available, again irrespective of any other consideration than the need of the individual for this form of treatment.

The great obstacle to such a scheme, doubtless, is the cost. But it should be remembered that all these services are to a considerable extent already in existence and are being paid for from the only source from which payment can come, namely, the pockets of the citizens. It is less a question of new expenditure than of a rearrangement and a redistribution of the expense so that it will fall on the whole of the community. Supposing that we had an equitable system of taxation, it is a question whether it would not be as well to distribute the cost of these services over the whole of the community instead of leaving them to be paid for by the unfortunate and the charitably-minded. That question involves political considerations and I shall not attempt to answer it. Whatever the correct answer may be, it is a question which at any rate deserves serious consideration.

There are only two other remarks I should like to make on this subject. One is that it does not seem to me to be a necessary consequence of a scheme such as I have indicated that all the medical work should be done by whole-time salaried officials. There is no reason why the treatment of individual patients should not remain in the hands of private medical practitioners. It should be remembered that the vast bulk of the medical work which is being done on behalf of the health of the people is being done by private medical practitioners. Their work should be regarded as an integral part of public health work and one of the most urgent needs is a recognition by Public Authorities of the value of the work which they are doing, a clearer definition of their part in the whole Public Health Scheme, and a closer co-operation between them and the Public Authorities.

The other point to which I wish to draw attention is perhaps not of very much importance but is, I think, interesting, namely, that a comprehensive scheme of health work, including treatment of all diseases and provision of hospital accommodation, involves no such radically new principle as many people think.

This is shown by the Public Health Act which was passed so long ago as 1875. Section 131 of that Act is as follows :—

> " Any local authority may provide for the use of the
> " inhabitants of their district hospitals or temporary places
> " for the reception of the sick, and for that purpose may—
> " Themselves build such hospitals or places of reception ;
> " or contract for the use of any such hospital or part of a
> " hospital or place of reception ; or

> "Enter into any agreement with any person having the "management of any hospital, for the reception of the "sick inhabitants of their district, on payment of such "annual or other sum as may be agreed on.
>
> "Two or more local authorities may combine in providing "a common hospital."

It is true that this power has, as a rule, been used only for the provision of hospitals for infectious diseases, but there is nothing in the Act to indicate any intention that it should be so restricted.

I have dealt with this matter of the Public Medical Services at some length, because it is clear from various indications that great developments are contemplated. Indeed, the Ministry of Health in their Circular No. 66, dated January, 1920, expressly state that specially full annual reports from Medical Officers of Health are required at present "to form "the basis for that careful and comprehensive scheme of "health developments generally which it is hoped may shortly "follow, *in every locality*, upon the recent unification in the "Ministry of Health of the various *central* functions in respect "of matters affecting the health of the public; since this "unification of the central administration implies, and, indeed, "cannot be effective without, a corresponding co-ordination of "local health activities."

It is therefore important that you should have the present conditions clearly put before you, with an indication of the lines along which developments will probably proceed.

With these introductory remarks I proceed to the report proper, under the various headings prescribed by the Ministry.

## NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

| | | |
|---|---|---|
| Population | (Census, 1891) ... | 19,236 |
| | (Census, 1901) ... | 19,320 |
| | (Census, 1911) ... | 19,048 |
| | Estimated, 1919 ... | 19,450 |

In estimating the population in 1919 it would not be correct to proceed on the assumption that the fall which took place between 1901 and 1911 had continued. In the opinion of your late M.O.H. the decrease shown in the 1911 Census Returns was an accidental and temporary decrease, due to the Wellington Pit disaster in 1910. It has therefore been necessary to seek other data for an estimation.

In 1917 the Borough Surveyor made a carefully considered estimate of the number of dwellings in the Borough, and placed this at 4,143. Since it is well known that no house ever remains vacant for more than a very short time, at present, we may therefore put the number of inhabited houses at the same figure. The Census Returns of 1911 show that the average number of persons per inhabited house was 4.7. Assuming that this average remained the same in 1919 and multiplying 4,143 by 4.7 we get the figure 19,472.

Between 1911 and 1919 the number of new houses built was 88. Multiplying this by 4.7 we get 413 new occupants of these houses. Adding 413 to the Census figures of 1911, namely, 19,048, we get a total of 19,461, which closely corresponds with the figure 19,472.

The " Return of Resident Population " at November 29th, 1919, based on the number of ration cards issued and the number of permanent residents in institutions, who are exempt from holding ration cards, is 18,830, but this figure is almost certainly too low. A certain unknown number of people failed to apply for ration cards.

The estimate of the Registrar-General is as follows :—

| | |
|---|---|
| For Birth-rate (*i.e.*, the civilian population plus the men away serving with the forces) ... ... | 19,205 |
| For Death-rate (*i.e.*, civilian population only) ... ... ... | 18,436 |

I have estimated the population at 19,450, but have used the Registrar-General's figures for calculating the Birth and Death-rates.

## PHYSICAL FEATURES.

Whitehaven lies, for the most part, in a narrow valley which opens, at each end, on the sea, and which is believed to have been at one time a sea-strait cutting off as an island the portion of high ground which juts into the sea at St. Bees Head.

This valley is flanked on the N.E. and S.W. by steep slopes rising to a height of 200 to 300 feet.

Houses are also built on the rising ground and on the summits on each side of the valley.

The subsoil is mostly sand in the lower parts and clay in the higher, or a mixture of one or both of these with gravel.

The configuration of the ground has, doubtless, been a determining factor in bringing about the crowding of houses on area which is so marked a feature of the central part of the Borough. The town originally consisted of a cluster of houses round the harbour. It could only extend conveniently in one direction, namely, along the narrow valley, the slopes on each side being too steep to form suitable building sites (although they have now been to a great extent built upon). As the industries of the town expanded, more particularly the coal mining industry, and rapid growth took place, this restriction of building area was probably an important factor in inducing people to build on the gardens and backyards of other houses, so producing the large number of "court-houses."

## SOCIAL CONDITIONS.

Whitehaven is an industrial town, the principal industry being coal mining, but there are other industries which employ many workers, such as tanning, flour-milling, printing, carpet and mat weaving. Considerable numbers are also employed in the various trades which minister to the needs of the local population, which is essentially a working-class population. At the present time nearly all able-bodied men are earning the standard rate of wages of their particular trades.

There is little destitution and not much serious poverty. The amount of poor relief required is not great. It increased somewhat in 1919, but the increase was more in the amount of money granted than in the number of recipients.

There is a well-equipped general hospital, the Whitehaven and West Cumberland Infirmary, staffed by local medical practitioners, which serves Whitehaven and a large area of surrounding country. This is taken advantage of to a large extent by the people of Whitehaven. Much valuable work is done by the District Nursing Association. Both these institutions are largely subscribed to by the workers.

## VITAL STATISTICS.

Tables I. to IV. in Appendix A set out the main facts with regard to Vital Statistics and Causes of Death.

Table I. shows the nett Births and Deaths actually belonging to the district, that is to say, including births and deaths of residents which occurred outside the district and therefore were registered elsewhere, but excluding births and deaths of non-residents which happened to be registered in the district. The necessary information for making these corrections is supplied by the Registrar-General.

The number of births is 529, of which 278 were male and 251 female, 20 male and 15 female being illegitimate. The excess of male births over female is to some extent counteracted even in the first year of life. Of the 61 deaths of children under one year of age 34 were male and 27 female.

The Birth-rate is 27.54, the highest since 1916.

The Death-rate is 17.79, which is lower than that of 1918, but higher than that of 1917.

The Infant Mortality rate is 115.31 per thousand live-births—the lowest since 1916 and considerably lower than in any other year of the five years shown.

The Illegitimate Infant Mortality rate is 171.42 per thousand illegitimate births, being, as usual, much above the total Infant Mortality rate.

An interesting comparison with the Statistics for England and Wales as a whole and for certain groups of towns is shown below.

| | Birth Rate. | Death Rate. | Infant Mortality Rate. | Diarrhœa and Enteritis under 2 years of age. Rate per 1,000 live births. |
|---|---|---|---|---|
| England and Wales ... | 18·5 | 13·8 | 89 | 9·59 |
| 96 great towns, including London (*i.e.*, with populations of over 50,000) | 19·0 | 13·8 | 93 | 12·24 |
| 148 smaller towns (*i.e.*, with populations of 20,000 to 50,000 ... ... ... | 18·3 | 12·6 | 90 | 8·67 |
| London ... ... ... | 18·3 | 13·4 | 85 | 16·22 |
| Whitehaven ... ... | 27·54 | 17·79 | 115·31 | 11·34 |

It will be seen that Whitehaven scores heavily in the matter of Birth-rate.

The Death-rates, however, compare very unfavourably for Whitehaven. Both General Death-rate and Infant Mortality rate are much higher not only than those of the country as a whole but also than those of the aggregates of the large and of the smaller towns. This does not, of course, necessarily mean that the death-rates are higher in Whitehaven than they are in every individual small or large town, but it means that they are above the average. Some explanation of the high death-rate is, no doubt, to be found in certain of the sanitary conditions commented on in the course of this report.

Table II. shows the principal causes of death.

The most noticeable feature is the large number of deaths (39) due to Measles, which accounts for more deaths than any other single disease. Closely following it come Bronchitis (38) and Tuberculosis (31), while Heart Disease (26) and Cancer (23) are also important causes of death. Influenza and Pneumonia together accounted for 32 deaths.

The number of Infantile deaths is also high, though considerably lower than it has been in most recent years.

Satisfactory features are the small number of deaths from Infectious Disease, apart from Measles and Tuberculosis, and the comparatively small number of deaths from Diarrhœa and Enteritis in young children.

Table III. shows the deaths from eight principal zymotic diseases. It would have been a very satisfactory record but for the Measles epidemic.

Table IV. is an analysis of the infant deaths.

Measles accounts for one-fifth of all the deaths.

As usual, Premature Birth, Congenital Malformations and Atrophy, etc. (*i.e.*, wasting conditions) account for a large proportion of the total deaths. The causes of these deaths are operative before birth and no well-defined method of attacking them has yet been evolved. Bronchitis (some of it probably due to Measles) and Enteritis also bulk fairly largely. These are, to some extent, at any rate, preventible.

## SANITARY CIRCUMSTANCES OF THE DISTRICT.

### WATER.

The town's water supply is obtained from Ennerdale Lake, which lies at a distance of about eight miles inland and at a height of 368 feet above sea-level, among barren, uninhabited and uncultivated hills. It is of exceptional purity and softness, exhibiting only 1.2 degrees of hardness and a complete absence of evidence of contamination.

Possible sources of contamination are the two or three houses situated on the shores or on ground which falls to the lake, but any such contamination must be very small in proportion to the large body of water.

The supply is constant, being delivered to the higher parts of the Borough by means of pumps.

The Town Council has the right to 2,000,000 gallons of water per day, from the lake, but the present capacity of the mains is only 1,300,000 gallons per day. This supplies a population of about 24,000 (including certain districts outside the Borough Boundary) thus allowing over fifty gallons per head per day. The water is used for industrial as well as for domestic purposes, and the supply is sufficient for present requirements.

Although the water supply is sufficient and of excellent quality, the number of water-taps provided for the houses leaves much to be desired. Many court and other houses have no tap indoors.

This is referred to in the housing section of the report, page 34.

### DRAINAGE AND SEWERAGE.

The whole of the town is sewered. The sewerage system was instituted in 1866 and has been well designed and executed. The larger sewers are of brick, built in cement, and there are also smaller pipe-sewers.

The sewers are ventilated by surface gratings, shafts and chimneys. Flushing is carried out by means of four automatic tanks of 250—340 gallons capacity, and thirty tanks of 50—250 gallons.

The sewerage system is in part a "separate" system, much of the storm waters finding its way into one or other of the three streams which traverse the town but which are now almost entirely covered over.

The sewage is conducted to a pumping centre near the harbour, and from here it passes through a long capacious culvert to the outfall, which is situated at low-water mark on the shore west of the town. The sewage is discharged crude. The outlet is guarded by a tidal valve and at, or near, high tide the sewage is held back and accumulates in the culvert, to discharge as the tide falls. As a rule pumping is not necessary, but in times of heavy storm the pumps are brought into action to prevent the sewage from heading back into the town sewers.

In addition to the main outfall there is a smaller one to the South which takes the sewage from the Kells district.

The house-drains in many cases pass under the houses, this being inevitable, owing to the nature and disposition of the buildings. Many of the drains of the older houses are unventilated. This is being gradually remedied as opportunity arises. In many instances there are no sinks in the houses, slop waters being emptied into an outside gully.

### CLOSET ACCOMMODATION.

Water-closets are provided throughout the town. There are no privies or earth-closets except in a few outlying farms and cottages.

The closet accommodation, however, in many parts of the town is insufficient, one closet being used in common by two or more families.

This is dealt with in the housing section of the report, page 34.

SCAVENGING.

Up till 1918 the house refuse was disposed of by taking it out to sea. In that year this system had to be abandoned owing to the inability of the Harbour Commissioners to continue to provide hoppers and towage. Since that time it has been dumped on the foreshore above high-water mark. This was adopted as a temporary measure owing to the difficulty of instituting a new system of disposal during the war. It cannot be said to be satisfactory, and the practice of depositing trade-refuse between low and high-water mark should not be allowed to continue.

In the absence of any municipal system of destruction the disposal of trade-refuse is a matter of great difficulty, and it is especially difficult to dispose of such things as condemned carcases of beef, which are very bulky. As a rule burial is the only method of disposal of these.

This matter of refuse-disposal is at present under consideration by the Streets Committee, and I would urge that a decision be come to as soon as possible.

The bulk of the house-refuse is collected daily. There are certain details of the collection which call for criticism. Householders put out their refuse in all sorts of receptacles—buckets, dilapidated wooden boxes, etc.—almost invariably uncovered. In some cases the refuse is simply deposited on the roadway.

In my opinion they should be required to provide proper, covered, metal dustbins. The Council have power to pass a bye-law to that effect.

Covered carts should be used to remove the refuse. Another defect in the system which is more difficult to remedy is the lateness of the hour at which the refuse is removed in some parts of the town. This leads to the ash-buckets standing outside the houses for an undue length of time and to the dust and ashes from the open receptacles being blown about the streets.

The Borough Surveyor informs me that there is great difficulty in inducing householders to put out their refuse at an early hour in the morning, and that to remove the refuse early in the day from all parts of the town would entail a large number of carts, horses and workmen, who would be occupied only for a short time every day.

The evils of the present system could be to a great extent obviated by having a time-table with a separate time for each street or part of a street, if the householders would observe the time-table, but I understand that it is found impossible to get them to do so.

I realise the difficulties but think it is my duty to draw your attention to these matters as they have a direct bearing on health. It is of great importance that the blowing of dust from refuse-bins and carts, through the streets and into the houses, should be reduced to a minimum. There can be little doubt that disease is spread by means of this dust. In particular, it is probably to some extent accountable for the production of Zymotic Enteritis or Summer Diarrhœa, which is so deadly a disease of young children. This year we appear to have been remarkably free from this disease, but it would be unwise to count on such freedom continuing.

## SANITARY INSPECTION OF DISTRICT.

Many sanitary defects exist throughout the town and nuisances frequently arise. This will continue to be so, as long as housing conditions remain in their present unsatisfactory state. The Council by their housing schemes are doing, I believe, all that can be done to improve these housing conditions, but it will be, at best, many years before they can be rendered satisfactory. Meantime a vast amount of sanitary inspection and supervision is required—much more than would be necessary under better housing conditions, and much more than can be attempted by one part-time Inspector of Nuisances.

A tabular statement of the work done under this heading is given in Appendix C, page 42. It will be seen that the commonest form of nuisance was "w.c.'s in an insanitary state," sometimes due to defective fittings, often due to want of care and cleanliness on the part of the tenants. The next most common fault was choked drains. This may be due to faulty construction, but is also frequently due to misuse of the drain and failure on the part of the householder to keep gullies clean and to protect them from the entrance of articles liable to cause blockage of the drains. Much education of the public is required on this subject. Many people seem to think orange-peel, banana-skins, cotton wool, whole sheets of newspaper and even considerable portions of old clothing quite suitable subjects for introduction into the drains. I have no wish to shelter property-owners who fail in their duty, but when blocked drains can be proved to be due to such abuses on the part of a tenant, I think it would be very salutary if the cost of clearing the drains could be made to fall upon him.

Two hundred and twenty-eight informal notices were served with a view to the abatement of the nuisances discovered. One hundred and ninety-four were complied with without any necessity for further proceedings. Thirty-four statutory notices were served by resolution of the Health and Housing Committee. Of these all but six were complied with, and in two of the six cases the work was in hand, though not completed, at the end of the year.

## PREMISES AND OCCUPATIONS WHICH CAN BE CONTROLLED BY BYE-LAWS OR REGULATIONS.

The Council have adopted Regulations for Dairies, Cowsheds and Milk-shops, and Bye-laws with regard to Common Lodging Houses, Slaughter-houses and New Streets and Buildings. I am not prepared to say at present whether anything further is required in this respect.

The four common lodging houses have been regularly inspected throughout the year and found satisfactory.

Dairies, etc., and slaughter-houses are dealt with under the Food Section of the report.

## SCHOOLS.

A full report on the sanitary condition of the public elementary schools is included in my annual report to the Education Committee, which is printed in the same volume as this report. The matter was receiving the attention of the Education Committee at the end of the year.

The public elementary schools were closed on my recommendation from 20th to 27th October, on account of the prevalence of Measles. As I stated to the Education Committee, I am not often in favour of closing the schools in a densely populated area like Whitehaven, but as the schools happened to have a week's holiday at that time I thought it worth while to try the effect of keeping them closed for an additional week. I do not think that this measure had any effect on the course of the epidemic.

Children suffering from infectious disease and their contacts are excluded from school under arrangements made by me as School Medical Officer. The fact of the offices of Medical Officer of Health and School Medical Officer being combined greatly simplifies measures of this kind.

## FOOD.

### (*a*) MILK SUPPLY.

The dairies, cowsheds and milk-shops have been inspected and found generally satisfactory. Two notices were served requiring the lime-washing of cowsheds and two notices requiring the cleansing of cowsheds. All were complied with.

The Council's Veterinary Inspector inspects the animals quarterly. No animals were found during the year to be suffering from Tuberculosis or other disease liable to cause contamination of the milk.

I hope to go into the whole question of the milk supply more fully in 1920.

MILK (MOTHERS AND CHILDREN) ORDER, 1918.

The provision of milk under this Order was undertaken towards the end of the year. The investigation of family circumstances and the arrangements for the supply of milk when found necessary are undertaken for the Council by the Whitehaven Ladies' Benevolent Society, on receipt of a certificate from the M.O.H. The mothers and children are visited in the ordinary course of their duties by the Council's Health Visitors. I have not been able to arrange for *special* supervision of these families, owing to the large amount of ordinary work required of the Health Visitors. Fourteen families were supplied under these arrangements during the year. In several cases the necessitous circumstances were due to the iron-moulders' strike.

(*b*) OTHER FOODS.

On page 42, Appendix C., will be found a statement of the amount of unsound food condemned. In all cases attention was drawn to the food by the vendors and there was no occasion for seizure or prosecution. In several cases the condition of the food-stuffs was first reported to the local Food Controller, who asked for the opinion of the Sanitary Inspector or myself upon it.

The bakehouses were inspected and found satisfactory.

At the end of the year I personally inspected the six Registered and two Licensed Slaughter-houses, and found them far from satisfactory. Much improvement could be effected if the bye-laws with regard to cleanliness and removal of refuse were complied with, and I intend taking up this matter in 1920. Apart from that, however, the premises are in most cases quite unsuitable in situation and construction, and I consider that the provision of a municipal abattoir, which is at present under consideration, would be a very valuable measure. Much of its value might be lost in the absence of compulsory powers to close the Registered Slaughter-houses, but I understand that there is a prospect of legislation giving such powers.

The ideal to be aimed at is that all slaughtering should take place in the public abattoir. Only in this way is it possible to ensure that all animals are slaughtered under proper conditions and that all carcases are subject to inspection. At present the Sanitary Inspector visits all the slaughter-houses weekly and, as far as possible, while slaughtering is in progress, but it is obviously impossible for him to inspect all carcases.

## PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES.

The numbers of the various notifiable infectious diseases notified during the year are shown in Appendix A., Table V., on page 40.

### MEASLES.

There was a severe epidemic of Measles in the latter part of the year, 470 cases being notified. This was fully dealt with in a special report, dated 31st December, 1919, which is included as an appendix to this report.

Measles ceased to be a notifiable disease on 31st Dec., 1919.

### DIPHTHERIA.

The Borough has been singularly fortunate in remaining comparatively free from this disease, although it has been prevalent in several neighbouring districts. Of the thirteen cases notified, six were admitted to the Infectious Diseases Hospital, and two of these died. These deaths occurred before my arrival here, but I am informed that both cases were admitted to hospital in an advanced stage of the disease, one in a dying condition and the other in a state in which recovery was almost hopeless. The latter died five days after, and the former within twenty-four hours of admission. Of the seven cases treated at home, four died. In at least two of these four cases the doctor was not called in until within a few hours of the child's death. This is the greatest obstacle to the successful treatment of Diphtheria. If only parents would call in the doctor early there would be few deaths, whether the patients were treated at home or in hospital. But when the doctor is first called in at an advanced stage of the disease neither he nor the hospital (if the case is removed to hospital) is given a fair chance of saving the patient's life. It is particularly regrettable that delay in obtaining treatment should occur in Diphtheria, which is a disease for which we have, in anti-diphtheritic serum, a wonderfully successful remedy, if only it is administered early.

In view of the opposition which is raised by some people to experiments on living animals it may be worth while to say that anti-diphtheritic serum, which has undoubtedly saved many thousands of lives, was not only discovered but is actually prepared by infecting living animals with Diphtheria.

Many Sanitary Authorities defray the cost of bacteriological examinations of material taken from patients by medical practitioners, as an aid to the diagnosis of Diphtheria, and also supply anti-diphtheritic serum for treatment. This Council has not adopted this policy and I submit, with all respect, that that is a mistake. Anything which tends to bring about early diagnosis and early administration of serum is of value both in restricting the spread and in lowering the mortality of the disease. The money spent in this way would, I believe, even from the strictly financial point of view, be a sound investment, as it would tend to diminish the number of patients to be treated in hospital, the duration of their stay in hospital, and the amount of serum required for their treatment while in hospital. A small dose of the anti-toxic serum administered early may obviate the necessity of ten times the amount, or more, later.

## SCARLET FEVER.

Of the three cases of Scarlet Fever one was treated in hospital, and two were isolated and treated at home. All recovered and there was no extension of the disease.

Ophthalmia Neonatorum is dealt with under the heading of Maternity and Child Welfare.

## ACUTE PRIMARY, AND INFLUENZAL, PNEUMONIA.

Influenza was epidemic in the early part of the year, the epidemic wave extending over from the end of 1918. The disease was not made notifiable until 1st March, 1919, and t is therefore not possible to say how many cases occurred. The forty-one cases notified represent only those which occurred after that date, but many cases occurred in January and February. The epidemic was at an end when I arrived and I am not in a position to make a report of any value upon it. Leaflets of advice were distributed in the hope of helping to check the epidemic.

Various measures in combating an epidemic are suggested by the Ministry of Health, of which the most valuable seem to be—

1. Supplementing the nursing staff available in the Borough.
2. Admitting severe or complicated cases to hospital.
3. The provision of "Home Helps."

The last-named is rendered necessary when families are so severely stricken that there is no one to carry on the work of the home and attend (apart from skilled nursing) to the sufferers.

## CEREBRO-SPINAL MENINGITIS.

One case of this disease occurred—in a boy of thirteen. No evidence of the source of infection could be found, and no further cases occurred. The patient was treated in the Infectious Diseases Hospital, and recovered. This is another disease in which treatment by anti-toxic serum is often of great value, and I believe I am justified in saying that this patient owes his life to that form of treatment, which he received in hospital. It is often quite impossible to account for the occurrence of cases of this disease. It does not appear to be highly infectious. Isolated cases occur, the infection of which cannot be traced to other cases.

The theory which, at the present moment, more or less holds the field is that the causal microbe is present in many people's throats without producing symptoms, but that at any moment some unknown combination of circumstances may arise which either increases the virulence of the microbe or lowers the resistance of the person harbouring it, with the result that he develops the disease.

Another possibility is that a small proportion of people are peculiarly susceptible to this infection and that when it happens to light on one of them the disease develops.

It is not improbable that this microbe gives rise to quite a number of cases of mild catarrhal illness not distinguishable from an ordinary catarrh, that it spreads in this way until it reaches a susceptible person, who then develops the very deadly infection of the Brain and Spinal Cord which is known as Cerebro-spinal Meningitis.

### DYSENTERY.

The only case of this disease was that of an ex-soldier, who developed the disease in Mesopotamia, and was notified by the Ministry of Health. He is under treatment by his own doctor. His house has been visited by the Sanitary Inspector and advice given as to the precautions which should be taken.

With regard to the general question of the control of Infectious Disease, the more serious of these diseases are removed to the Isolation Hospital unless I am satisfied that they can be satisfactorily isolated at home. Cases of Measles, Whooping Cough, Chickenpox, Mumps and Erysipelas are not removed to hospital except under exceptional circumstances. The Sanitary Inspector visits the homes in the case of the notifiable diseases, gives advice, distributes leaflets and, when necessary, carries out disinfection. In some cases I have examined contacts, and in a few cases have taken material from their throats for Bacteriological examination.

Information of non-notifiable diseases is obtained mainly through the schools. Mumps and Whooping Cough were moderately prevalent during the year. Neither was very serious. Cases of infectious disease, whether notifiable or not, are, together with their contacts, excluded from school for the necessary period.

## TUBERCULOSIS.

The local authority for the treatment of Tuberculosis is the County Council. The names of cases of Tuberculosis notified to me are forwarded weekly to the County Medical Officer of Health, who makes all arrangements with regard to treatment. A dispensary, situated in Whitehaven, serves both the town and the surrounding country. A Medical Officer on the County Council staff attends weekly. Patients are seen by him and suitable cases are sent to a sanatorium when a bed is available.

This Council is responsible for measures to prevent the spread of infection. All notified cases are visited by the Sanitary Inspector, who tells them that treatment can be obtained free at the dispensary, and who advises them as to measures which may be taken in connection with the home conditions both for the benefit of the patient and for the protection of others. A copy of a leaflet of advice, which I have drawn up, is left at the house.

The administrative work in connection with Tuberculosis affords a good example of the overlapping of the spheres of local authorities, to which reference is made in the introduction to this report. In order to make the system as efficient as possible I keep in touch with the Tuberculosis Officer. We exchange information and work in co-operation.

The notification of Tuberculosis appears to be fairly well carried out, but some cases escape notification. Of the deaths which took place from Tuberculosis during the year seven occurred in cases in which I had no record of notification. In four cases the first notification which I received was the notification from the sanatorium stating that the patient had been admitted. No action has been taken to enforce notification, and I do not think that any good purpose would be served, at present, by any such action.

## VENEREAL DISEASES.

These diseases constitute a serious defect in the Public Health, and are prevalent in Whitehaven, as elsewhere. There is no means of ascertaining the number of cases that exist, but the notifications of Ophthalmia Neonatorum and my observations at the Child Welfare Clinic and in the schools indicate that they are not uncommon.

The County Council is the local authority for dealing with these diseases. At the end of the year arrangements had been completed for the opening of a Clinic for their treatment at the Infirmary, by a specialist on the County Council Medical

Staff, and treatment was begun early in 1920. I believe that this measure will be productive of much good, and anything which can be done to facilitate the working of the scheme should be done.

### SMALLPOX.

There has been no case of this disease and no action under the Public Health (Smallpox Prevention) Regulations, 1917, has been necessary.

The position with regard to Smallpox is, however, a dangerous one. Less than half the number of children born are vaccinated. Whitehaven is not exceptional in this respect and, Vaccination being optional, there is at present no remedy. The result is that there is in Whitehaven and elsewhere a very large proportion of unprotected population.

Improved sanitary administration has, no doubt, reduced the risk of a Smallpox epidemic, and there are some distinguished sanitarians who consider general infantile vaccination unnecessary. I cannot help considering this a most dangerous doctrine. The best administrative measures are liable to fail sometimes, and an outbreak of Smallpox in a population so densely packed as that of Whitehaven, and in large proportion not protected by vaccination, might well have most disastrous results. The question of how far it is justifiable to compel people to be inoculated with diseases is a very difficult one, but, whatever may be the correct answer to it, I cannot help feeling that we are living in daily peril of a deadly outbreak of Smallpox.

I am glad to be able to report that no cases of Typhoid or Typhus Fever have arisen during the year, but I am bound to confess that for this immunity we have to thank Providence rather than the sanitary conditions prevailing. Although a great improvement has been effected by the provision of w.c.'s throughout the town, the conditions under which many of the people live are not such as to warrant the assumption that the danger of Typhoid is past.

Judging from what I have seen in the schools the presence of the body-louse is far from rare among the population, and where that is so there is always the danger of Typhus—a disease from which Whitehaven has suffered in comparatively recent times, although it is now rare in this country.

The existence of lice-infestation presents an exceedingly difficult problem for which at present I have no solution to offer. I hope to have some recommendations to make on the subject in 1920.

## MATERNITY AND CHILD WELFARE.

### MIDWIFERY.

The Whitehaven Town Council is the local authority under the Midwives Acts, 1902 to 1918, and the inspection of midwives is carried out by the M.O.H.

There are nine midwives registered in the Borough, of whom five are trained and four untrained. The untrained midwives had the right to be placed on the roll in virtue of the fact that they were in *bona fide* practice as midwives before the passing of the Act of 1902.

Two of the trained midwives are officers of the Council. As they alternate spells of Midwifery duty with spells of Health Visiting and School Nursing they are together equivalent to only one whole-time midwife. The number of trained midwives available is therefore four. Of these, two are District Nurses and midwifery forms only a small part of their duties. The other trained midwife is in private practice, having notified her intention to practice, on 9th September, 1919.

A regrettably high proportion of the midwifery work of the Borough is done by untrained midwives, who, however capable and conscientious they may be, have not the knowledge or the training necessary for the proper carrying out of this important work. They have, however, a legal right to practise, and to deprive them of this would, of course, involve hardship.

All the midwives are inspected quarterly and a copy of the report is sent to the County Council. I have found the trained midwives satisfactory, and the others do not appear to be below the standard which may be expected of untrained midwives.

One of the latter was reported to the Central Midwives' Board on account of a breach of the rules of that Board, and this Council as the local supervising authority found that a *prima facie* case of negligence had been made out against her. The Central Midwives' Board after some investigations failed to proceed with the case, for (as it seems to me) insufficient reason.

The employing of a midwife by the Council has proved a most useful measure and her services are greatly appreciated and very much in demand—so much so that she had to refuse six cases in December, 1919, and a similar number for January, 1920. Six cases per month represent about half the number of cases which can be satisfactorily dealt with by a whole-time midwife. I therefore recommend the Council to consider seriously whether the time has not come to employ another midwife.

There can be no question as to the value of this as a measure for the benefit of mothers and children. In considering the question of expense it should be remembered that the fees charged (and apparently willingly paid) go a long way towards paying her salary and the other expenses of this service, if she is fully employed. Of course, one can hardly expect that an additional midwife would be fully employed at once. I find that the people of Whitehaven are somewhat conservative and take some time to assimilate the idea of a new person, and consequently the number who would apply for her services would at first probably be smaller than the demand for the services of the midwife who has been in your employment for over a year would lead one to anticipate. This would, no doubt, right itself in time, and I believe that it would not be very many months before an additional midwife would be fully employed.

The number of confinements attended by the Council's Midwife during the year was 162, the cases being distributed as follows :—

| | | | |
|---|---|---|---|
| January ... | 5 | July ... ... | 15 |
| February ... | 13 | August ... | 13 |
| March ... | 12 | September ... | 20 |
| April ... | 6 | October ... | 16 |
| May ... | 9 | November ... | 17 |
| June ... | 18 | December ... | 18 |

I consider that anything over twelve to fourteen per month is excessive for one midwife.

In addition to attendance during labour, the following numbers of visits were paid :—

| | |
|---|---|
| Ante-natal Visits ... ... ... | 147 |
| Ordinary Midwifery Visits ... ... | 1,949 |
| Late Visits ... ... ... | 172 |
| Total ... | 2,268 |

By " ordinary midwifery visits " is meant visits during the fortnight following labour.

By " late visits " is meant visits after this period.

## Child Welfare.

Five hundred and thirty-three births were notified during the year, 284 male and 249 female, including twenty-four still-births and ten cases of twins.

A comparison with the tables of Vital Statistics will show that the number of births notified was four more than the number registered. This may be accounted for by the fact that while notification is required within thirty-six hours a period of six weeks is allowed for registration. Therefore the number of births registered within the year does not exactly represent the number of children born within the year. The figures indicate, however, that very few births escape notification.

The Health Visitors paid eighteen ante-natal visits to twelve mothers, and in addition paid 516 first visits and 1,321 revisits, making a total of 1,855 visits.

In the case of nearly all births notified visits are made to the home by the Health Visitors and advice given to the mothers. Most useful work is being done in this way. I mean no disparagement of the Child Welfare Centre when I say that more good is done by the home visitations of the Nurses than by the attendances at the Centre. The good done by the Nurse's visits is by no means confined to the particular baby she visits. The Nurse is a Missionary preaching the Gospel of Health to the people and giving them practical instruction in the way they should go. The lessons learned by one mother are no doubt passed on to others and thus a gradual education is taking place, which, there is good reason to hope, will in time lead to a general enlightenment on the subject of child-rearing and of other health matters.

The Maternity and Child Welfare Centre is open every Tuesday at 2 p.m. Mothers and children are welcomed, the babies are weighed, advice is given, and dried milk is supplied at cost price when this is considered advisable. The Medical Officer of Health attends and sees mothers and children, for whom his advice is required. During 1919 I saw only those mothers or children whom the Health Visitor thought it necessary to refer to me, but at the beginning of 1920 I started seeing every child on its first attendance, and I hope, as far as possible, to see all children not less often than once in four weeks.

A committee of ladies give valuable assistance in keeping the register, talking to the mothers and providing tea, for which a small charge is made.

There was a total of 1,477 attendances at the Centre and 194 consultations with the Medical Officer.

No case of Puerperal Fever has been notified during the year.

Thirteen cases of Ophthalmia Neonatorum were notified. All were visited by the nurses and two by myself. The nurses insist on a doctor being called in if this has not been done, and advise and assist the mothers in carrying out the treatment which he prescribes, unless the case is being looked after by a District Nurse. In one case in which no doctor was called in I treated the case. That is work which I do not wish to undertake, but in this case I felt that there was likely to be delay in the child's obtaining medical treatment, which delay might have had serious results.

All the patients recovered completely except one, in which case the sight of one eye was lost, the other eye recovering completely.

Some expansion of the Maternity and Child Welfare scheme is desirable, and I think the provision of a lying-in home and of Home Helps are the two measures most required. There is at present no hospital accommodation for confinement cases except when a serious operation is required, in which case the patient may be admitted to the Infirmary. There are, however, two classes of case for which a lying-in home would be of great value :—

1. Abnormal and difficult cases.
2. Cases in which the homes are very unsuitable places for a confinement to take place.

Under the County Council Maternity and Child Welfare scheme the provision of lying-in beds is contemplated and it would almost certainly be the most economical arrangement for this Council to combine with the County Council in providing a lying-in home to serve both Whitehaven and neighbouring districts.

The provision of Home Helps would, I am afraid, be difficult, but it is greatly needed. When the housewife is laid up she needs not only the services of a nurse or midwife but requires someone to run the house for her and look after her other children, if she has any. The absence of such help causes her worry and so adds to her suffering and diminishes her chances of making a good recovery. It often leads to her getting up too soon and working too hard shortly after her confinement, and the other children are apt to suffer from neglect. The ordeal of a confinement is quite sufficiently severe without the addition of added domestic anxieties.

If a system of Municipal Home Helps should be instituted I should like to put in a plea for the mothers who do not belong to what are usually called " the woking classes." Many of these are unable to obtain the additional help which they need, even though they may be able and willing to pay for it, and very great hardship results, which I am sure often retards their recovery or even prevents a complete recovery.

There is no doubt, also, that worry diminishes the mother's ability to breast-feed, with resulting injury to the child. I think there can be little doubt that the difficulties attendant on bringing a child into the world are among the causes of the fallen birth-rate.

## SANITARY ADMINISTRATION.

1. The staff of the Public Health Department consists of :—

(*a*) The Medical Officer of Health who is also School Medical Officer and who, in addition, holds the office of Medical Officer of Health to the Whitehaven Rural District Council, and devotes his whole time to these offices. He acts as Medical Officer to the Infectious Diseases Hospital and to the Maternity and Child Welfare Centre, and as Inspector of Midwives

(*b*) The Inspector of Nuisances, who is also Inspector of Markets and the Officer designated under the Housing Town Planning Act, 1909. He spends one day per week and Saturday evening in his duties in connection with the market.

(*c*) Three part-time Nurses.

One of these spends about half of her time in Health Visiting under the Maternity and Child Welfare Scheme and half as School Nurse. The other two alternate the above duties with periods of pure midwifery work, so that there is always one nurse employed, whole-time, on midwifery duty.

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Since this report was written the necessary clerical assistance has been supplied by arrangement with another department.

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## 2. HOSPITAL ACCOMMODATION.

There is an Infectious Diseases Hospital of twenty-four beds and ten cots, which is available for cases of infectious disease, other than Smallpox. It is a well-designed and equipped hospital in a high and airy situation overlooking the sea. During the year the following cases were treated in the hospital :—

| DISEASE. | Children under 14. | Males over 14. | Females over 14. | Average duration of stay in Hospital. | Results of Treatment. |
|---|---|---|---|---|---|
| Diphtheria ... | 4 | ... | 2 | 17·5 days | 2 died, 4 recovered |
| Cerebro Spinal Meningitis ... | 1 | ... | ... | 33 ,, | recovered |
| Scarlet Fever ... | 1 | ... | ... | 35 ,, | recovered |

I have found the management of the hospital and the work of the nurses satisfactory. Necessary repairs and decoration, which had been delayed owing to the war, were undertaken during the year and were almost completed at the end of the year.

## HOSPITAL ACCOMMODATION FOR SMALLPOX.

The Whitehaven Town Council is a contributing authority to the Derwent Joint Smallpox Hospital Board, which has a hospital at Camerton. The hospital has six permanent beds and is so planned that temporary wards could be rapidly erected if necessity arose.

## 3. LOCAL ACTS, &c.

There are no local Acts or special local Orders relating to the Public Health in force in the district.

The following Adoptive Acts have been adopted :—

- The Public Health Acts Amendment Act, 1890, Parts I. II. and III.
- The Public Health Acts Amendment Act, 1907, Parts II., III., IV., V., VI. and X.
- The Infectious Diseases (Prevention Act) 1890, Part I.

4. No chemical or bacteriological work was undertaken during the year, with the exception of the examination of a few throat-swabs taken by me from cases or suspected cases of Diphtheria, and their contacts. These swabs were sent to the Clinical Research Association, London, for examination and report.

## FACTORY AND WORKSHOPS ACT, 1901.

In Table VIII., Appendix D, particulars are given with regard to the Workshops on the Register. These were systematically inspected during the year and found on the whole satisfactory. In three cases no Abstracts of the Act were posted up, and verbal notice was given to have this put right. In one case the ventilation was proved to be defective. This is receiving attention, but no action had been taken at the end of the year.

## PUBLIC HEALTH WORK IN CONNECTION WITH THE PORT.

Since the work of the Port has been almost in abeyance during the year I do not think it is necessary to make any report beyond the following tables presented by the Ministry of Health.

## FORM A.

## AMOUNT OF SHIPPING ENTERING THE DISTRICT DURING THE YEAR.

| | Number. | Tonnage. | Number Inspected | | Number reported to be Defective. | Number of Orders Issued. |
|---|---|---|---|---|---|---|
| | | | By the M.O.H. | By the Inspector of Nuisances | | |
| Foreign— | | | | | | |
| Steamers ... ... | 3 | 1,569 | ... | 3 | ... | ... |
| Sailing ...<br>Fishing ... | ... | 421 | ... | ... | .. | ... |
| Total Foreign | ... | 1,990 | .. | 3 | ... | ... |
| Coastwise— | | | | | | |
| Steamers ... ... | .. | 69,116 | ... | 5 | ... | ... |
| Sailing ...<br>Fishing ... | ... | 1,916 | ... | ... | ... | ... |
| Total Coastwise | 908 | 71,032 | ... | 5 | ... | ... |
| Total Foreign and Coastwise .. | ... | 73,022 | ... | 8 | ... | ... |

## FORM B.

| Names of Vessels arriving in the district. | | Names of Vessels subjected to measures of Rat destruction. | | | Method employed | No of Rats killed. |
|---|---|---|---|---|---|---|
| Plague Infected. | Plague Suspected. | Plague Infected. | Plague Suspected. | Other Vessels. | | |
| | | | NIL. | | | |

## Housing.

### I.—General Housing Conditions in the District.

| | | |
|---|---|---|
| 1. | Total number of houses ... ... | 4,143 |
| | Number of working-class houses ... | 3,815 |

No new houses for the working classes were completed during the year.

A start was made on the first instalment of the Council's Housing Scheme, which consists of sixty houses on the Coach Road Site.

2. Population—estimated at 19,450.

   No important changes took place during the year. Considerable developments are expected in connection with the Whitehaven Collieries, and it is stated that when the new works are completed employment will be found for upwards of 2,000 additional workers. The date at which these new workers will be required, if ever, is quite uncertain.

3. There is a serious shortage of houses. Not only is every available house occupied, including many which are not fit for habitation, but there are many people in want of houses and unable to obtain them.

   It is, however, less an absolute shortage of house than a shortage of satisfactory houses, and the main need is for new houses to replace those which ought to be demolished.

   The Council have adopted a scheme for the building of 980 houses to meet this need.

## II.—OVERCROWDING.

1. The amount of overcrowding of persons in houses is not very great. The Records of Inspections under the Housing Town Planning Act, 1909, show a total of 164 houses or tenements with two or more occupants per room. There are in these houses 449 rooms and 1,246 persons, giving an average of 2.7 persons per room and 7.6 persons per house. The overcrowding consists, rather, of overcrowding of houses on area, which is serious.
2. The chief cause of overcrowding of persons in houses is the shortage of houses, but poverty no doubt accounts for a few cases.
3. Practically nothing can be done to remedy the overcrowding until new houses are built.
4. Eight cases of overcrowding were reported to the Health and Housing Committee. In four cases improvement was effected by accommodation for one of the occupants being found elsewhere.

## III.—FITNESS OF HOUSES.

1. (*a*) General standard of housing in the district.

   The standard of housing in all classes of house is low. It is not too much to say that a really satisfactory house is the exception rather than the rule. Even the better class houses are in most cases badly designed and many are damp. Much of the plumber-work gives the impression that it has been designed to be as inefficient as possible. In one house, for example, which is considered one of the good houses, the outlet of the bath is situated at the highest point of the floor of the bath, which slopes away from it in all directions ; the waste-pipe of a sink on the ground floor joins the waste from a basin on the first floor almost at a right angle, and the combined waste then takes a sharp bend before going through the outside wall, and there is no means of access to the mouth of the pipe to clear it. I use this merely as an illustration. Other faults, different in nature but similar in absurdity, abound even in the better houses.

A striking feature is the frequency with which even this class of house is without a bath and sometimes without a hot-water system.

The small amount of garden space in connection with even the houses which command a good rent is notable. Many of them are built on excavations on the side of the hill and have their back garden almost on a level with the first floor, the earth being held in position by a retaining wall, separated from the back of the house by a narrow area, with the result that the kitchen is dark and ill-ventilated.

As is usually found in places where the majority of houses were built fifty years or more ago, the houses are as a rule too high and too narrow, often with basement kitchens and, generally, so planned as to cause the maximum of inconvenience and the minimum of comfort.

To some it may seem far-fetched to introduce these matters into a Public Health report, but I believe it is not so. I am firmly convinced that many women of the middle-classes are being worn-out before their time and having their lives shortened by the unnecessary work and worry involved in running an inconvenient house.

These considerations are, however, trivial when compared to the conditions obtaining in the working-class houses and in the houses of the poor.

In these a bath is almost unknown. In a very large number of cases there is no back-yard. Many are without an indoor water-tap or sink. It is not uncommon for one w.c. to be used in common by two or more families, and I know of one instance where only one water-tap and two w.c.'s are available for a group of ten houses.

The number of back-to-back and back-to-earth houses is very great, and it is common for two rows of court-houses, two or three storeys high, to face each other over a space of ten feet or less, one end of the court being formed by a high building and the other by two houses fronting on the street—the entrance to the court being a narrow covered passage between the two front houses. In such a court the rooms are dark even at midday and if the windows are opened very little fresh air enters. It is this class of house more especially which is deficient in w.c. accommodation, water-taps and means of disposal of slop-waters.

I am unable to state the exact number of houses which are unfit for habitation, but, by a general survey, by a detailed inspection of a considerable number of houses and by consultation with the Borough Surveyor, whose knowledge of the housing conditions is intimate, I have arrived at the conclusion that there are about 1,000 houses unfit for human habitation and incapable of being made fit. That is a very large estimate, practically one-quarter of the houses in the Borough, and I have not committed myself to it without very careful consideration. I believe it will be found to be substantially accurate.

There are about 700 court-houses, most of which by reason of their situation and construction are unfit for habitation and not capable of being made fit. In addition to these there is a considerable number of front houses, especially at street corners, which cannot be made fit, without some scheme of reconstruction which would diminish the number of houses.

The groups of houses known as the Newhouses and Mount Pleasant and Mc.Garry's Buildings, comprising about 320 houses in all, are unfit for habitation, and while it is possible to conceive a reconstruction scheme in the case of these houses, I think it is extremely improbable that any satisfactory scheme of reconstruction could be carried out at a less cost than that of building new houses elsewhere.

With regard to the courts, I do not think it would be possible to devise schemes of reconstruction which would not reduce the total number of houses by at least the number of houses at present unfit for habitation.

I believe the Council to be fully alive to the unsatisfactory nature of the existing housing conditions. Indeed, the Health and Housing Committee, by proposing and the Council by adopting a scheme to provide 980 new houses for the working classes, have shown their determination to do all in their power to provide a remedy, and it is therefore unnecessary for me to urge the importance of this question.

There is one thing I should like to say, however. I believe there are times when everyone is appalled by the cost of carrying out the full scheme. The cost is indeed staggering, and I am glad that it is no part of my duty to say how the money is to be found ; but let us not forget the other side of the account, namely—the cost which would have to be paid, in mortality and suffering and degradation, for any failure to remedy the conditions which prevail at present.

(*b*) General character of the defects found to exist in unfit houses.

These are, for the most part, lack of through ventilation, deficiency of lighting and free circulation of air and absence of the possibility of providing proper sanitary conveniences on account of the crowding of houses on area. There is also a considerable number of houses which are back-to-earth and suffer from dampness.

2. Action taken as regards unfit houses.

In only one case, that of an empty house, was it possible to proceed by making a Closing Order. The Health and Housing Committee have felt that in view of the extreme shortage of houses, closing orders could not be made at present in respect of inhabited houses. Personally, I do not see how the Committee could have arrived at any other conclusion, anxious though I am to see the unfit houses closed. Nuisances and minor defects have been dealt with under the Public Health Acts and the Housing Acts.

3. Difficulties in remedying unfitness, special measures taken, &c.

The shortage of houses has not only prevented the making of closing orders but has also interfered with the remedying of conditions which are capable of remedy. Many of these defects occurred in houses which will ultimately have to be demolished, and it has been felt that it would be unjust to require owners to expend considerable sums on their property when that property would, as soon as possible, be demolished. This creates a very unfortunate situation, because it will be, at best, a matter of years before all the new houses required are built, and meanwhile these remediable defects remain unremedied. This difficulty has been aggravated by the greatly increased cost of repairs and alterations.

The great majority of the houses that are unfit for human habitation are incapable, on account of their position, of being made fit and therefore little can be done until new houses are built.

4. Water Supply, Closet Accommodation, &c., in relation to Housing.

There are many houses without a water-tap and w.c. for their own exclusive use. These houses are in almost all cases court-houses or other houses which will ultimately be demolished and, as mentioned above, this renders it difficult to improve matters in these respects. There is also a considerable number of houses which, while not unfit for habitation, have insufficiently lighted and ventilated w.c.'s or w.c.'s opening directly off a living room or scullery. Such cases are being gradually dealt with by requiring the owner to carry out the necessary works, when this can be done, but there are many houses whose construction makes it impossible or extremely difficult to provide satisfatory accommodation.

## IV.—UNHEALTHY AREAS, AND ACTION TAKEN UNDER PART I. AND PART II. OF THE HOUSING ACT OF 1890.

No complaints were received, no representations were made and no action was taken under this heading. The policy adopted in this matter is explained by the following quotation from my statement which accompanied the "Survey of Housing Needs," under the Housing Town Planning, &c., Act, 1919.

"There are many parts of the Borough of White-
"haven in which ideal results could be obtained only by
"the adoption of Improvement Schemes under Part I. or
"Part II. of the Housing of the Working Classes Act,
"1890; but the housing conditions in the Borough are
"such that, in my opinion, not only could an enormous
"improvement be effected by proceeding under Sections
"17 and 18 of the Housing Town Planning Act, 1909, but
"improvement could be effected more rapidly by this
"than by any other method of procedure.

"The unsatisfactory housing conditions in the
"Borough are very largely due to insanitary houses
"having been built in the gardens and back-yards of

"houses fronting on the street, thus producing the in-
"sanitary courts, of which there is such a large number.
"These court-houses are in almost every case unfit for
"human habitation, and the most urgent housing need
"is that these should be demolished, and that better
"houses should be provided on other sites."

## Appendices to the Housing Section of the Report.

(1) Number of dwelling-houses in respect of which complaints were made that they are unfit for human habitation—*Nil.*

(2) Number of Inspections under Section 17 of the Housing Town Planning Act, 1909, defects found and result of action taken—see Tables VI. and VII., page 41.

Number of dwelling-houses which were considered to be unfit for human habitation ... ... ... 45

(3) Action under Section 28 of the Housing Act, 1919.

No action was taken under this Section of this Act. Notice to remedy defects were served under Section 15 of the Act of 1909.

(4) Closing Orders.

(*a*) Number of representations made to the Local Authority, with a view to the making of—
Closing Orders ... ... ... ... 45
Number of Closing Orders made ... ... 1
Number of Closing Orders determined ... 0

(5) Number of Demolition Orders made ... ... 0
Number of houses demolished ... ... 0

(6) Number of houses demolished voluntarily ... 0

(7) Obstructive Buildings—
(*a*) Number of representations made ... 1
(*b*) Number of buildings demolished ... 0
(*c*) Number of representations still under consideration ... ... ... ... 1

(8) Staff engaged in housing work with duties of each officer.

The Inspector of Nuisances is also the Inspector under the Housing Act, 1909. He inspects all the houses systematically and reports monthly to the Health and Housing Committee

The Medical Officer and the Borough Surveyor inspect and report upon houses referred to them by the Committee.

In the foregoing report I have endeavoured to put before you a full and true account of the present state of matters in Whitehaven, from the point of view of the Public Health, not glossing over the evils which exist but, on the other hand, not exaggerating them. I have, necessarily, dwelt on the unsatisfactory side more than on the satisfactory, not from any desire to paint the situation as black as possible, but because I believe great things can be done for the health of the people of Whitehaven, and because a necessary preliminary to effecting improvement is a just and full recognition of the evils which call for remedy.

Finally, I am firmly convinced that, while the building of houses is urgently required, and while sanitary inspection and supervision and the exercise of various compulsory powers are both necessary and valuable, the greatest need of all is that of educating the public in the art of leading healthy lives.

I believe that it is this educative process (painfully and dishearteningly slow though it is) which offers the best hope for the future, and that by no means the least useful service which sanitarians can render to the community is that of endeavouring gradually to produce an enlightened and well-informed public opinion on matters pertaining to health.

I am, Gentlemen,

Your obedient Servant,

T. S. Mc.INTOSH,
*Medical Officer of Health.*

# APPENDIX A.

## TABLE I.—VITAL STATISTICS OF BOROUGH DURING 1919 AND FIVE PREVIOUS YEARS.

| Year. | Population estimat'd to Middle of each year. | Nett Births belonging to the District. | | | Nett Deaths belonging to the District. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Under 1 Year of age. | | | | At all Ages. | |
| | | Total No. | Rate per 1,000 population. | Illegitimate No. | Total No. | Rate per 1,000 Live Births | Illegitimate No. | Rate per 1,000 Illeg. Births. | No. | Rate per 1,000 population. |
| 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. |
| 1914 | 19,300 | 592 | 30·67 | .. | 77 | 130·07 | .. | .. | 315 | 16·32 |
| 1915 | 19,300 | 555 | 28·76 | .. | 89 | 161·82 | .. | .. | 434 | 22·49 |
| 1916 | 18,040 | 499 | 27·66 | .. | 46 | 92·18 | .. | .. | 290 | 16·08 |
| 1917 | 17,892 | 479 | 24·04 | .. | 68 | 141·90 | .. | .. | 279 | 15·59 |
| 1918 | 17,693 | 485 | 24·46 | .. | 63 | 129·00 | .. | .. | 358 | 20·23 |
| 1919 | 19,205*<br>18,436† | 529 | 27·54 | 35 | 61 | 115·31 | 6 | 171·42 | 328 | 17·79 |

*—For calculation of the Birth-rate }
†—For calculation of the Death-rate } Figures supplied by the Registrar General.

N.B.—Total Population estimated by M.O.H. at 19,450.

| | | |
|---|---|---|
| Area of District in Acres | 1,743 | At Census of 1911. |
| Total Population, at all ages | 19,048 | |
| Number of Inhabited Houses | 3,972 | |
| Average Number of Persons per house | 4·7 | |

## TABLE II.

## CAUSES OF DEATH DURING THE YEAR 1919.

| Causes of Death. | Males. | Females. |
|---|---|---|
| All causes .. .. .. .. | 160 | 168 |
| Enteric Fever .. .. .. | .. | .. |
| Smallpox .. .. .. .. | .. | .. |
| Measles .. .. .. .. | 21 | 18 |
| Scarlet Fever .. .. .. | .. | .. |
| Whooping Cough .. .. .. | .. | .. |
| Diphtheria and Croup .. .. | 2 | 5 |
| Influenza .. .. .. .. | 8 | 6 |
| Erysipelas .. .. .. | .. | .. |
| Pulmonary Tuberculosis .. .. | 6 | 12 |
| Tuberculous Meningitis .. .. | 2 | 2 |
| Other Tuberculous Diseases.. .. | 3 | 6 |
| Cancer, malignant disease .. .. | 8 | 15 |
| Rheumatic Fever .. .. .. | 1 | .. |
| Meningitis.. .. .. .. | .. | .. |
| Organic Heart Disease .. .. | 17 | 9 |
| Bronchitis .. .. .. | 15 | 23 |
| Pneumonia .. .. .. | 8 | 10 |
| Other Respiratory Diseases .. | 2 | 3 |
| Diarrhœa, &c. (under 2 years) .. | 3 | 3 |
| Appendicitis and Typhlitis .. .. | .. | .. |
| Cirrhosis of Liver .. .. .. | .. | .. |
| Alcoholism .. .. .. | .. | .. |
| Nephritis & Bright's Disease.. .. | 4 | 3 |
| Puerperal Fever .. .. .. | .. | .. |
| Parturition, apart from Puerperal Fever .. .. .. .. | .. | .. |
| Congenital Debility, &c. .. .. | .. | .. |
| Violence, apart from Suicide .. | 3 | 2 |
| Suicide .. .. .. .. | 1 | .. |
| Other Defined Diseases .. .. | 39 | 43 |
| Causes ill-defined or unknown .. | 3 | 3 |

## TABLE III.—DEATHS FROM EIGHT PRINCIPAL ZYMOTIC DISEASES IN 1919.

| | |
|---|---|
| Smallpox ... ... ... ... ... ... | 0 |
| Measles ... ... ... ... ... ... | 39 |
| Scarlet Fever ... ... ... ... ... ... | 0 |
| Diphtheria and Croup ... ... ... ... ... | 7 |
| Whooping Cough ... ... ... ... ... | 0 |
| Typhus Fever ... ... ... ... ... ... | 0 |
| Enteric Fever ... ... ... ... ... ... | 0 |
| Diarrhœa and Enteritis (under 2 years of age) ... ... | 6 |
| Total ... | 52 |

Zymotic Death-rate per 1000 of population ... 2·8

## TABLE IV.—CAUSES OF, AND AGE AT DEATH, OF INFANT DEATHS.

| Cause of Death. | Under 1 Week. | 1 to 2 Weeks. | 2 to 3 Weeks. | 3 to 4 Weeks. | Total under 4 Weeks. | 1 to 3 Months. | 3 to 6 Months. | 6 to 9 Months. | 9 to 12 Months. | Total Deaths under 1 Year. |
|---|---|---|---|---|---|---|---|---|---|---|
| Measles ... ... | ... | ... | ... | ... | ... | ... | ... | 8 | 4 | 12 |
| Diphtheria ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 1 |
| Abdominal Tuberculosis | ... | ... | ... | ... | ... | 2 | ... | ... | ... | 2 |
| Other Tuberculous Diseases | ... | ... | ... | ... | ... | ... | 1 | ... | ... | 1 |
| Convulsions ... | ... | ... | ... | ... | ... | ... | 1 | ... | 4 | 5 |
| Bronchitis ... | ... | ... | ... | ... | ... | ... | ... | 6 | 1 | 7 |
| Pneumonia ... | ... | ... | ... | ... | ... | ... | ... | ... | 2 | 2 |
| Enteritis ... | ... | ... | ... | ... | ... | 2 | 1 | 3 | ... | 6 |
| Syphilis ... ... | 1 | ... | ... | ... | 1 | ... | ... | ... | ... | 1 |
| Congenital Malformations | ... | ... | ... | ... | ... | 2 | ... | ... | ... | 2 |
| Premature Birth | 5 | 2 | 1 | ... | 8 | 1 | 1 | ... | ... | 10 |
| Atrophy Debility and Marasmus | 3 | 1 | ... | ... | 4 | 1 | ... | 1 | ... | 6 |
| Other Causes ... | 2 | ... | ... | ... | 2 | ... | 2 | 1 | 1 | 6 |
| All Causes ... | 11 | 3 | 1 | ... | 15 | 8 | 6 | 19 | 13 | 61 |

# TABLE V.—CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1919.

| Notifiable Disease. | Cases Notified in Whole District. | | | | | | | | | Total cases removed to Hospital. |
|---|---|---|---|---|---|---|---|---|---|---|
| | At all Ages. | At Ages. | | | | | | | Age Unknown. | |
| | | Under 1. | 1 to 5. | 5 to 15. | 15 to 25. | 25 to 45. | 45 to 65. | 65 and upwards | | |
| Smallpox ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Cholera ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Plague ... .. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Diphtheria (including Membranous Croup) | 13 | ... | 5 | 5 | 1 | ... | 1 | ... | 1 | 6 |
| Erysipelas .. | 4 | ... | ... | ... | ... | 1 | 2 | 1 | ... | ... |
| Scarlet Fever ... | 3 | ... | 1 | 2 | ... | ... | ... | ... | ... | 1 |
| Typhus Fever ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Enteric Fever ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Relapsing Fever ... | ... | ... | ... | ... | ... | ... | ... | .. | ... | ... |
| Continued Fever ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Puerperal Fever .. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Cerebro-spinal Meningitis ... | 1 | ... | ... | 1 | ... | ... | ... | ... | ... | 1 |
| Poliomyelitis ... | .. | | .. | ... | ... | ... | ... | ... | ... | ... |
| Ophthalmia Neonatorum ... | 13 | 13 | ... | ... | ... | ... | ... | ... | ... | ... |
| Pulmonary Tuberculosis .. | 52 | 1 | 2 | 10 | 13 | 23 | 2 | ... | 1 | ... |
| Other forms of Tuberculosis ... | 9 | ... | 2 | 4 | 2 | 1 | ... | ... | ... | ... |
| Measles ... ... | 470 | 24 | 276 | 161 | 3 | ... | . | ... | 6 | ... |
| German Measles ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Acute Polio-encephalitis ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Encephalitis Lethargica ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Acute Primary & Influenzal Pneumonia | 40 | ... | 1 | 3 | 6 | 15 | 4 | 2 | 9 | ... |
| Malaria ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Dysentery ... | 1 | ... | ... | ... | ... | 1 | ... | ... | ... | ... |
| Trench Fever ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Totals ... | 606 | 38 | 287 | 186 | 25 | 41 | 9 | 3 | 17 | 8 |

Bransty Hospital for Infectious Diseases is situated within the Borough, and provided by the Corporation.

# APPENDIX B.—HOUSING INSPECTIONS.

## TABLE VI.—INSPECTIONS UNDER THE HOUSING, TOWN PLANNING, &c., ACT, 1909, DURING THE YEAR 1919.

| Number of Dwellinghouses Inspected. | Number of Notices Served to Remedy Defects found on Inspection. | Number of Notices complied with. | Work in hand. | Notices not complied with. | Houses found without defect. |
|---|---|---|---|---|---|
| 164 | 139 | 10 | 69 | 60 | 25 |

## TABLE VII.—SHOWING THE NUMBER AND CHARACTER OF DEFECTS FOUND TO EXIST.

| CLOSET ACCOMMODATION. | | | DRAINAGE AND SLOP WATER. | | | LIGHT AND VENTILATION. | | | Defective Walls, Roofs, Ceilings, and Spouts. | Defective Floors. | Defective Paving of Yards and Out-Houses. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| In-sufficient. | Situation Unsuitable requiring Removal. | Condition Defective requiring Re-construction. | Defective Drains and Soil-pipes. | Defective Gullies. | Defective Sinks and Waste-Pipes. | Windows Fixed. | Other defects of Windows interfering with Ventilation. | Partitions in Bedrooms interfering with Ventilation. | | | |
| 17 | 14 | 58 | 3 | 10 | 17 | 65 | 57 | 5 | 58 | 10 | 16 |

| Table VII—*contin.* | Yards Covered in. | Overcrowding in Houses. | Back to Back. | Defective Steps and Stairs. | Absence of thro' Ventilation | Total. |
|---|---|---|---|---|---|---|
| | 4 | 4 | 19 | 2 | 53 | 412 |

# APPENDIX C.

## Summary of Sanitary Inspector's Report, 1919.

| | |
|---|---|
| Defective roofs, walls, ceilings (causing dampness) | 12 |
| ,, Rain-water spouts | 7 |
| ,, Water supply (from defective connections) | 44 |
| ,, and choked drains | 56 |
| ,, Paving and channelling in courts, yards, etc. | 4 |
| ,, Sink connections | 2 |
| ,, Water taps and pipes (wasting water) | 14 |
| ,, Gully traps | 18 |
| ,, Bath and lavatory wastes | 4 |
| ,, Soil-pipes | 2 |
| ,, Urinals | 4 |
| ,, Floors (harbouring dirt) | 2 |
| ,, Chimneys | 1 |
| ,, Steps and stairs | 4 |
| ,, Cross channel (dangerous) | 1 |
| Accumulations of manure (in connection with stables, cowsheds and slaughter-houses) | 15 |
| Accumulations of bones (marine stores) | 3 |
| Nuisances caused by gut scraping | 5 |
| ,, ,, offal | 1 |
| W.C.'s in an insanitary state (fittings defective, &c.) | 108 |
| Houses and premises in dirty insanitary state | 41 |
| Dwelling-houses overcrowded | 5 |
| Limewashing of courts | 4 |
| ,, ,, slaughter-houses | 15 |
| ,, ,, cowsheds | 2 |
| Receptacles for slaughter-houses | 13 |
| Nuisances caused by dogs, pigs, poultry | 2 |
| Insufficient w.c. accommodation | 1 |
| | 390 |
| Miscellaneous | 81 |
| | 471 |

Unsound Food—

Eggs, 2,240.
Carcases of Beef, 4.
Portions of Carcases (2), 476 lbs.
Carcases of Mutton, 7.
Fish, (25 boxes of Dried Haddock), 25 stone.
Bacon, 11 cwts. 4 qrs. 21 lbs.
Hams, 698 lbs.

| | | | |
|---|---|---|---|
| Informal Notices served, | 228 | Statutory Notices served, | 34 |
| Complied with | 194 | Complied with | 28 |
| | | In hand | 2 |
| | 34 | Not done | 4 |

# APPENDIX D.

## TABLE VII.

Workshops on the Register at the end of the Year 1919.

| Nature of Business. | No. of Workshops. | Number of Persons employed. | | |
|---|---|---|---|---|
| | | Male. | Female. | Total. |
| Dressmakers and Milliners ... ... | 16 | ... | 59 | 59 |
| Bakers ... ... ... ... ... | 10 | 11 | 36 | 47 |
| Tailors ... ... ... ... ... | 9 | 28 | 14 | 42 |
| Joiners ... .. . ... .. | 4 | 9 | ... | 9 |
| Cloggers .. ... ... ... ... | 6 | 15 | ... | 15 |
| Boot and Shoemakers ... ... ... | 5 | 16 | ... | 16 |
| Braziers and Tinsmiths... . . ... | 1 | 6 | ... | 6 |
| Saddlers ... ... ... ... ... | 2 | 7 | 7 | 14 |
| Tallow Melter ... ... ... ... | 1 | 2 | 3 | 5 |
| Bacon Washer ... ... ... ... | 1 | 3 | ... | 3 |
| Plumbers ... ... ... ... | 8 | 46 | ... | 46 |
| Coach Builder ... ... ... ... | 1 | 3 | ... | 3 |
| Aerated Water Maker ... ... ... | 1 | 6 | ... | 6 |
| Hosier ... ... ... ... ... | 1 | ... | 1 | 1 |
| Blacksmith ... ... ... ... | 1 | 3 | ... | 3 |
| Dye Works ... ... ... ... | 1 | 1 | 1 | 2 |
| Upholsterers .. ... ... ... | 2 | 1 | 2 | 3 |
| Watchmaker ... ... ... ... | 1 | 2 | ... | 2 |
| Motor Works ... ... ... ... | 4 | 16 | 1 | 17 |
| Builder ... ... ... ... ... | 1 | 21 | ... | 21 |
| Total ... ... ... | 76 | 196 | 124 | 320 |

## APPENDIX E.—Special Reports on Measles.

Town Hall,
Whitehaven,
*30th May*, 1919.

Mr. Chairman and Gentlemen,

In compliance with Minute 173 of the Meeting of the Health and Housing Committee, held on 25th April, 1919, I beg to submit the following report on

### THE PROVISION OF HOME NURSING FOR CASES OF MEASLES IN YOUNG CHILDREN.

### I.—The Necessity for taking action with regard to Measles.

Measles is a disease which, though popularly regarded as trivial, yet is accountable year by year for a heavy mortality. There are, on an average, about 11,000 deaths certified as due to Measles, per annum, in England and Wales. In addition to this figure a considerable proportion of the deaths certified as due to Bronchitis and Broncho-Pneumonia in young children are, in the first instance, due to Measles, although that disease does not appear on the death certificate. Further, a considerable proportion of the patients who recover suffer, as a result of their attack of Measles, from permanent defects such as Bronchitis, Tuberculosis, Deafness, Impairment of Vision.

In 1918, Whitehaven suffered an epidemic of Measles, and there were twenty-one deaths certified as due to Measles. This gives a death-rate of 1.2 per thousand and accounts for 5.27% of all the deaths registered during the year.

That is a large proportion of the total deaths to be accounted for by one disease, especially taking into account that the death-rate was abnormally high as a result of another disease, namely, Influenza. In addition, a certain proportion of the thirty-three deaths from Bronchitis and Pneumonia, under five years of age, was almost certainly due to Measles and finally, the permanent defects caused among the survivors have also to be kept in mind.

### II.—The Objects of providing Nursing.

The objects are two-fold—

(1) The benefit of the individual sufferers.
(2) The prevention of spread of the disease.

(1) *Benefit of individual sufferers* :—

It may be said that this is no concern of the Health and Housing Committee and that, if you provide medical or nursing treatment for one disease, why not for all ? And I have no doubt in my own mind that the principle *will* be extended to include other diseases. Still a case can be made out for dealing with Measles without accepting the general principle. The case is as follows :—

(*a*) The treatment of Measles is definitely a part of Child Welfare. Its incidence is very largely among children under the age of five, and the mortality which it causes still more strikingly falls on children under five. In other words, not only are the great majority of sufferers under five years of age but it is a very much more dangerous disease under than over that age. Of the twenty-one deaths from Measles in Whitehaven, in 1918, seventeen occurred in children under five.

Now the principle of supplying medical and nursing assistance to children under five has been already accepted in your Maternity and Child Welfare Scheme. In fact, it is not a case of *inserting* the thin end of the wedge but of driving, a little further in, a wedge which has been already introduced.

(*b*) Again, Measles does to some extent stand in a class by itself. It is a disease which is accountable for a serious mortality, and yet it is one which a large section of the population regards lightly, not calling in a doctor and often not even confining the sufferers to bed or to the house. It is this fact which is accountable for most of the mortality. If patients are kept in bed and taken care of it is comparatively rare for serious symptoms to supervene. On the other hand, it is a very deadly disease if not properly treated. It is, therefore, considered that by sending a nurse to warn the parents of the dangers of the disease, to recommend the calling in of a doctor and to give some simple advice as to protecting the child from chills, a considerable number of lives might be saved.

(2) *Prevention of Spread.*

A nurse's visits might be very useful from this point of view.

(*a*) Isolation in hospital is not a suitable means of dealing with this disease, for several reasons. It is, therefore, the more necessary that provision should be made for the supervision of home isolation. A nurse could do much towards persuading a mother to keep the sufferer isolated from her other children and to keep her family isolated from other families.

(*b*) Again, the nurse's visits would be valuable in discovering unnotified cases, both in the same and in other houses. This is very important. One can only conjecture as to how many cases escape notification, but I estimate that not more than one-third of all cases are notified. The doctor, if called in at all, is only required to notify the first case occurring in the house. The duty of notifying subsequent cases devolves upon the parents and there is no doubt that the parents mostly neglect to perform this duty. Further, very few parents who do not call in a doctor will notify the cases. As a matter of fact, of 382 cases notified during February, March and April, 1918, only nine were notified by parents or guardians. Therefore the nurse would, doubtless, in the course of her visits, discover many cases which had not been notified and would extend her efforts towards inculcating home isolation to these cases and would exclude them and their contacts from school. It should also be remembered that it is precisely those cases which are not notified which are most likely to prove fatal. Of the twenty-one deaths in 1918, only seven occurred in cases which had been notified.

## III.—THE AMOUNT OF WORK WHICH A SCHEME OF HOME NURSING WOULD INVOLVE.

When we come to consider what such a scheme would involve we encounter a very serious difficulty. Epidemics of Measles usually come in cycles of two or three years and vary very much in severity. Moreover, they are of comparatively short duration. If we take the numbers of cases notified in each year since Measles was made compulsorily notifiable, namely, since 1st January, 1916, we find the following :—

| *Year.* | *Number of cases notified.* |
|---|---|
| 1916 ... ... ... | 15 |
| 1917 ... ... ... | 32 |
| 1918 ... ... ... | 457 |

Taking now the year 1918, we find that the cases were distributed as follows :—

| *Year* 1918. | |
|---|---|
| January ... ... | 25 cases |
| February ... ... | 99 ,, |
| March ... ... | 180 ,, |
| April ... ... ... | 103 ,, |

| | | | |
|---|---|---|---|
| May | ... | ... | 29 cases. |
| June | ... | ... | 11 ,, |
| July | ... | ... | 5 ,, |
| August | ... | ... | 3 ,, |
| October | ... | ... | 1 ,, |
| November | ... | ... | 1 ,, |

The overwhelming majority of the cases occurred in the three months, February, March and April. This shows that the appointing of a whole-time staff for this purpose alone is out of the question.

The Local Government Board, in their letter of 7th March, 1919, recommend the provision of " home nursing for cases of Measles in *young* children where such assistance is found to be necessary." By " young " children I presume that they mean children under school age, because on reaching school age the children become the concern of the Board of Education. Now, in my opinion, if this is undertaken at all it should not be restricted to children under five years of age. It would be ludicrous to deny nursing assistance to a child of five-and-a-half who was seriously ill, while providing it for a child of four-and-a-half with a mild attack.

Since your Medical Officer of Health is also School Medical Officer and the Health Visitors are also school nurses, no administrative difficulties would arise in extending home nursing to children of school age.

Then as regards the selection of cases, there is, to my mind only one way in which this can be done, namely, for the nurse to visit every case notified, and every unnotified case which she discovered, and to report to the Medical Officer of Health, who would then instruct her as to which cases should receive further visits. If she found that a doctor were in regular attendance she would not visit again unless requested to do so by him. If a doctor had not been called in, she would, in all cases, advise that this should be done and would visit again to see if her advice had been taken. If not, she would pay a sufficient number of visits to keep the case under observation, the number varying according to the severity of the case.

The Medical Officer to the Local Government Board, in a Memorandum on Measles, dated November, 1915, states that " where no doctor has been called in the diagnosis should be verified, where possible, by the Medical Officer of Health or by another officer acting under his instructions ; or the Sanitary Authority should arrange for a Medical Practitioner to be available for this special work."

While the verifying of the diagnosis by the Medical Officer of Health is, doubtless, the ideal procedure, I doubt very much if it is practicable.

I estimate that in such an epidemic as we had in 1918 two nurses would be kept hard at work during the three months in which the epidemic was at its height, and probably one nurse would be fully occupied during the month preceding and the month following these three months.

The steps by which I have arrived at this conclusion are as follows :—

In February, March and April, 1918, 382 cases were notified. Suppose that the nurse discovered two cases for every one notified. (I do not think this is an unduly high estimate for reasons given in para. II. 2 (*b*). That gives us 1,146 cases in thirteen weeks. The cases may be divided into three classes :—

Class I.—Cases which run a normal course. These would require, say, three visits each.

Class II.—Moderately severe, with perhaps slight Bronchitis, necessitating daily visits for about a week—say nine visits in all to each case.

Class III.—Really bad cases—necessitating, say, twenty visits to each case.

The last class would be relatively small. There are no statistics to guide one, but I have estimated that—

75% of cases would fall into Class I.
20% ,, ,, ,, Class II.
5% ,, ,, ,, Class III.

The cases notified by doctors in the three months under consideration numbered 373.

In addition, there would be a certain number of cases attended by doctors but not notified (subsequent cases occurring in the same house as a notified case). These may be estimated at half the cases notified by doctors—say 186.

373 + 186 = 559 attended by doctors.
1146 — 559 = 587 not attended by doctors.

The 559 cases attended by doctors would require, say 600 visits.
The remaining 587 cases would require visits as follows :—

| | | | | | | |
|---|---|---|---|---|---|---|
| Class I. | (75% of 587) | 440 cases | @ 3 | visits each | = | 1,320 visits. |
| ,, II. | (20% of 587) | 117 ,, | 9 | ,, | = | 1,053 ,, |
| ,, III. | (5% of 587) | 30 ,, | 20 | ,, | = | 600 ,, |
| | | | | Total Visits | | 3,573 |

3,573 visits in 13 weeks of 6 working days = 3,573 ÷ 78 = 46 visits per day.

If the nurse did four visits per hour and visited six hours a day she would do twenty-four visits per day. Therefore, two nurses working whole-time would be required.

The above represents a hard day's work for a woman, visiting on foot, but as the number of *houses* to visit would be less than the number of *visits* to be paid it would not, perhaps, be excessive.

While the above is the most accurate estimate I can form, it is based to a great extent on figures which can only be conjectural and I feel considerable doubt as to whether two nurses could cope with the work at the height of such an epidemic.

If the Committee should decide to recommend the adoption of such a scheme to the Council, I suggest that one of the two Health Visitors at present employed by the Council should be set free from all other work, should the occasion arise, to undertake this work, and that the District Nursing Association should be approached with a view to ascertaining whether they would be willing to supply a nurse for this purpose, if necessary.

The School Work and the Maternity and Child Welfare work would, of course, suffer by this arrangement, but, as it would probably be wise under such circumstances to close the Child Welfare Centre, and, as many children would be absent from school on account of Measles, it would probably be possible for one nurse to do the most essential work of these departments for the time being.

I am, Mr. Chairman and Gentlemen,

Your obedient Servant,

T. S. Mc.INTOSH,
*Medical Officer of Health.*

31st December, 1919.

Mr. Chairman and Gentlemen,

During the last four months of the year the Borough has been visited by a severe epidemic of Measles. There are two unusual features about this epidemic, firstly, that it followed a previous severe epidemic at an interval of only slightly over a year, and secondly, that it began at an unusual time, namely, the early autumn.

Increased prevalence of Measles in England and Wales generally was first noticeable in March. It began to decline in July and rose again in September and October.

Whitehaven escaped the first wave almost entirely, but was caught by the second.

The first case notified this year was on April 9th and occurred in the central part of the town. No source of infection was traceable. The next case was notified on April 29th, in the Arrowthwaite District. It does not seem probable that there was any connection between the two cases.

. Only one case was notified in May.
3 cases were notified in June.
5 ,, ,, ,, July.
7 ,, ,, ,, August.

Up till the end of July eleven cases had been notified, and six of these were in the Arrowthwaite and Kells district. The interval between the first and second cases in this district (April 29th to June 25th) is too long to allow of the supposition that the second case had been infected directly by the first. There is always the possibility, however, that there may have been unnotified or even unrecognised cases forming a link between the two. The second, third, fourth, fifth and sixth cases in this district were probably directly connected.

In August, seven cases were notified in various parts of the town, and in the second week of September it was evident that a severe epidemic was in progress and that all parts of the town were involved.

The disease may have spread from Arrowthwaite and Kells to the other parts of the town and, indeed, it is almost certain that some such spread did take place, but it is equally probable that many of the cases were infected by children belonging to neighbouring districts. As a matter of fact, the epidemic, so far as West Cumberland is concerned, appears to have begun in Aspatria in March, then spread to Cockermouth and later to Carlisle, Whitehaven, Workington and Whitehaven Rural District.

Up to 27th December 467 cases had been notified, of which
81 occurred in September.
209 ,, ,, October.
139 ,, ,, November.
20 ,, ,, December.

Only three were notified in the last complete week and, I think, we may safely conclude that the epidemic has almost spent itself.

There have been thirty-nine deaths certified as due to Measles.

This gives a death-rate of 2.2 per 1,000 (on the supposition that there have been no further deaths between 27th and 31st December) due to this disease alone.

It also accounts for 11% of the deaths from all causes during the year.

In addition to these thirty-nine deaths certified as due to Measles, there were, during the epidemic period, seven deaths of young children due to Bronchitis and Pneumonia, some of which would almost certainly be due to Measles.

When to this is added the large number of survivors, on whose health more or less lasting evil effects will have been produced by the disease, it is quite evident that there is no need to labour the point that Measles is a serious menace to the Public Health.

One more point of interest with regard to the mortality is the fact that, of the thirty-nine deaths, twelve occurred under the age of one year and all occurred under the age of five years, showing how much more deadly the disease is in very young, than in older, children. It is, therefore, evident that any measures which succeeded even in postponing the disease to a later age, would be of value, and that the popular idea that it is useless to try to protect children from Measles because they are bound to catch it sooner or later, is a dangerous one.

Unfortunately, when we come to try to devise measures to prevent the spread of Measles we are on very difficult ground, Isolation in hospital is hopeless, firstly because of the large number of cases and the tender years of the bulk of the sufferers, and secondly, because the most infectious period is the catarrhal stage before the rash appears and, therefore, by the time the case is recognised the worst of the mischief is done.

There is one method which I believe, if it could be carried out, might be of great value If we could, the moment the *first* case in the district was recognised, whip off the whole family (or at least all the children in the family) to the Fever Hospital and keep them there for three weeks, it might be possible thus to prevent the occurrence of an epidemic. Even then, however, we should probably fail, as infection would spread into the town from other districts. In any case, we have no powers to do this compulsorily, and I am afraid we could not hope to do it with the consent of the parents.

That being so, it appears that the best that can be done is to try to diminish the spread and mitigate the severity of the disease by some scheme of home visiting, as suggested by the Ministry of Health.

The subject of Home Nursing of cases of Measles was fully dealt with in my report of 30th May, 1919, and I ask you to consider this report along with that one.

Under the Public Health (Measles and German Measles) Regulations, 1915, Rescission Order, 1919, Measles ceases to be a notifiable disease after 31st December, 1919. This, however does not materially affect the situation. We shall still continue to receive information of a large proportion of the cases of Measles through the schools, and the Ministry of Health expressly state that this Rescission Order is not to be taken as an indication that any of the measures adopted to combat Measles should be dropped.

At the beginning of the epidemic I had all cases visited by the Health Visitors on the lines of my report of 30th May, but as we were unable to make any arrangements with the Nursing Association and as one of our Health Visitors left on October 1st and we were unable to replace her for a considerable time, all visiting of cases of Measles had to be dropped.

I consider that it is useless to attempt home nursing of Measles with our present staff. Since the Nursing Association do not see their way to come to our assistance there are only two alternatives :—

1.—To engage a temporary nurse when an epidemic breaks out.

This is not very hopeful. It is not easy to get temporary nurses at short notice, and nurses who take temporary appointments are not, as a rule, free to take an appointment for four or five months, as would probably be necessary.

2.—To appoint a third whole-time Health Visitor and School Nurse, who would be available for this work when required.

The second alternative is, in my opinion, the one which should be adopted. When Measles was not prevalent she would be usefully employed in visiting all cases of infectious disease and in helping with the general work which is rapidly getting beyond the power of the present staff to compass. More visiting of infants and young children would be beneficial, as would additional following up of verminous children found in the schools. The work of the School Clinic is steadily increasing. The new scheme under the Education Act, 1918, will involve additional work for the nurses, and the work suggested by the Ministry of Health in connection with the provision of milk would alone employ a whole-time nurse.

I do not feel justified in holding out the hope that by adopting a scheme of Home Nursing for Measles anything more than a mitigation of the severity of an epidemic could be accomplished. In the present state of our knowledge of the disease administrative measures can only bring about partial success. But I believe much good could be done, lives could be saved and suffering diminished. Moreover, it is by such experiments that knowledge is increased, and better methods discovered. I suppose that fifty years ago the attempt to control Typhoid Fever probably looked as hopeless as the attempt to control Measles does now. Nevertheless, Typhoid Fever has become a comparatively rare disease, and I do not think it is too much to hope that means may be found to cause Measles to follow suit, if all measures giving a reasonable hope of success are attempted.

I am, Mr. Chairman and Gentlemen,

Your obedient Servant,

T. S. Mc.INTOSH,

*Medical Officer of Health.*

# APPENDIX F.

## Specimens of Leaflets of Advice distributed in connection with Infectious Diseases.

## ADVICE ON TUBERCULOSIS.

Consumption is an infectious disease. The chief source of danger is the spit of the consumptive which, when dry, is blown about as dust and may be inhaled or swallowed by healthy people, who may then become consumptive.

This shows the necessity of keeping houses clean and free from dust.

### Prevention and Treatment.

Tuberculosis is curable if taken early. The probability of cure gets less as the disease progresses.

Tuberculosis is not inherited ; it is caught.

It is always caught from a person who is suffering, or from infected air, milk or meat.

Overcrowding, bad lighting, bad ventilation, dampness and dirt, make people liable to tuberculosis.

Underfeeding, intemperance, measles, or whooping cough, if not thoroughly cared for and cured, neglected colds, and general ill health, make people catch consumption readily.

Bad teeth, enlarged tonsils and adenoids facilitate the entry into the body of the germ of tuberculosis.

Good health is the best protection against the disease.

Every person suffering from tuberculosis is liable to give the disease to other persons, chiefly by means of the droplets given off in speaking, by the spit or discharges from running glands or bones.

Patients suffering from tuberculosis should sleep alone.

Patients suffering from tuberculosis should destroy their spit or other discharges or runnings, so that they may not be dangerous to others.

If they are compelled to spit indoors, they should spit on to a piece of paper or clean rag, which can be at once burnt, or into a spit-cup containing a little water and washing soda. They should take care that no spit is smeared over their bed-clothes or night dresses. Out of doors they should spit into the gulley adjoining the kerb, and not on the street or pathway, or, preferably, into a spitting-flask containing strong solution of washing soda.

Dressings removed from the discharging or running wounds of persons suffering from tuberculosis of glands or bones, etc., should be at once burnt and fresh clean dressings should be immediately re-applied. On no account should the discharges or runnings be allowed to soil the bed or clothes, or any wearing apparel.

All bed and body linen should be well boiled or soaked for an hour in a disinfectant before being washed.

No cup, spoon, or other article which has been used by a person suffering from tuberculosis should be used by anyone else until it has been carefully washed.

Food left by a person suffering from tuberculosis should not be eaten by any other person.

No one suffering from tuberculosis should kiss the lips of any other person.

No one suffering from tuberculosis should be kissed on the lips or any affected part.

No mother suffering from tuberculosis should suckle a baby.

*Persons suffering from tuberculosis should secure treatment at home, at a dispensary, hospital, or sanatorium without delay. The chance of complete recovery is greatly improved if treatment is secured early.* **The Dispensary for Whitehaven is situate at 102, Scotch Street, next to Congregational Church.**

All persons in the same family or living in the same tenement as a person suffering from tuberculosis should be examined by a doctor.

Sunlight and fresh air are aids to treatment, and all rooms occupied by persons suffering from tuberculosis should have the windows kept open night and day.

Rooms occupied by persons suffering from tuberculosis should be kept scrupulously clean. They should be dusted with a damp cloth and swept by having tea-leaves or sawdust put down, so that the dust is removed without being spread through the air.

There should be no unnecessary furniture in the room occupied by a consumptive patient. Remove all curtains, pictures, ornaments, &c., which harbour dust and germs. Linoleum is preferable to a carpet, as it can be washed and does not collect dust.

### After-care.

Patients who have been under treatment for tuberculosis and have got better can keep well by observing the following rules :—

Read this leaflet carefully throughout, and give effect to all its points.

Follow the special rules learnt while under treatment
Lead an open-air life.
Have fresh air indoors and out of doors.
Have a separate bedroom if possible, and put the bed near the window.
Avoid crowded rooms and buildings.
Take plenty of food with plenty of butter, margarine or other fats, and milk and eggs.
Let your food be well cooked and nicely served.
Eat slowly and at regular hours.
Keep the teeth clean and in good order.
Avoid fatigue of body and mind.
Rest before and after meals.
Take a long night's rest.

Disinfectants will be supplied by the Sanitary Inspector.

When a room which has been occupied by a consumptive ceases to be so occupied it should be thoroughly cleaned and the Medical Officer of Health should be informed in order that the room may be disinfected. This will be done free of charge.

T. S. Mc.INTOSH, M.D., D.P.H.,
*Medical Officer of Health.*

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## INFLUENZA.

**Warning.**—The Person attacked by INFLUENZA who does not take precautions runs grave risks himself and may be a source of danger to others.

**Influenza is a serious disease and is highly infectious.** Infection is always caught through **direct contact** with a person suffering from the disease. A very severe attack may be caught from a person who has it in a mild form. The patient is MOST INFECTIOUS AT THE BEGINNING OF THE ILLNESS.

**Precautions.**—Try to Protect Yourself and Others.

### How to avoid Attack. General Rules.

(1.) **Protect your Health.** Remember if you protect your health, your health will protect you.

(2.) **Cleanliness and Moderation.** Lead a clean, simple, natural life. Avoid excesses of all kinds ; the immoderate drinker stands a poor chance if Pneumonia follows Influenza.

(3.) **Fresh Air and Ventilation.** Be in the open air as much as possible, and get all the fresh air that can be got into the living and sleeping rooms by opening the window wide and often.

(4.) **Wear Warm Clothing.**

## Special Rules.

(1.) **Follow the General Rules.** When Influenza is prevalent remember the above Rules.

(2.) **Avoid Overcrowded Places.** The risks are greatest where there are numbers of people and ventilation is poor. Keep away from crowded meetings and places of amusement. Walk rather than travel in crowded trains, trams, or 'buses.

(3.) **Avoid Infected Houses and People.** Avoid altogether or as much as possible any house where there are cases of Influenza. Keep at as great a distance as convenient when taking to anyone suffering from a cold in the head or a feverish cold.

(4.) **The Path of Infection.** Remember the infection gets into the body by the mouth and nose, and when Influenza is prevalent there is risk of breathing-in infection in most places of public resort.

(5.) **A Clean Mouth and Teeth.** At these times be careful to keep the mouth clean. See that the teeth are sound. Use the toothbrush night and morning. Wash out the mouth and gargle the throat.

(6.) **A Mouth Wash.** Warm water containing a little salt and Condy's Fluid may be used.

(7.) **Keep the Nostrils clean.** The nostrils may also be washed out by snuffing the mixture from the palm of the hand and expelling it through the mouth.

## How to Protect Yourself if Attacked.

Pneumonia, Heart Failure and Consumption often
follow Influenza.

(1.) **Isolation.** Even if the attack is mild, keep indoors and take care of yourself. Remember the risks of complications and of spreading infection to others.

(2.) **Avoid Draughts.** The Influenza patient should be kept warm and protected from draughts, but rooms should not be " stuffy." the mouth and nose may be washed out as already described.

(3.) **The Doctor and the Nurse.** Call in the doctor early. In bad cases medical advice is essential, and careful nursing may be necessary. In these cases the patient should be as completely isolated as arrangements in the home allow.

(4.) **Prevent Complications.** After the illness and fever have gone, chill and over-exertion should be avoided.

### How to Protect Others.

The Infected Person can and must avoid Spreading Infection.

(1.) **Remain Indoors.** The proper place for a person with Influenza is indoors. He is a source of danger to others. Public places and meetings should be avoided as far as possible.

(2.) **Sneezing and Coughing.** When he sneezes or coughs the infected person discharges infection that others may breathe, especially if the material coughed up is carelessly spat out.

(3.) **Shield the Mouth.** In coughing and sneezing, the mouth and nose should be shielded with a handkerchief or otherwise.

The handkerchief should not be carelessly left about and should be kept out of the reach of children.

(4.) **Destroy Expectoration.** Material coughed up should be received in a special vessel and afterwards disinfected or burned.

Persons nursing a case of Influenza can protect themselves by tying a bandage of butter muslin (3 layers) round the head so as to cover mouth and nose.

All these Rules apply equally well to a " Cold in the Head." When Influenza is prevalent any feverish cold may be Influenza, and for the sake of the Sufferer and the Public should be considered Iufluenza.

Further information may be obtained from the undersigned.

T. S. Mc.INTOSH, M.D., D.P.H.,
*Medical Officer of Health.*

## SCARLET FEVER.

### Symptoms of Scarlet Fever :—

The main signs of Scarlet Fever are :—

Sore Throat, Shivering, Sickness, Vomiting, Headache, Feverishness, Flushing of the Face, Scarlet Rash on Chest, Arms and Legs or other parts of the body, Peeling of the Skin.

If any of these signs appear in any member of the family, you should *at once isolate him, send for the doctor, and pay strict attention to the following rules* if you would protect yourselves and your children.

### Rules for the Prevention of the Spread of Scarlet Fever.

Immediately a case is suspected to be Scarlet Fever, the sick person should be separated from the rest of the family.

If a patient is not at once removed to hospital a room should be set apart for the reception of the patient, all curtains and bed hangings having been previously removed, and no furniture should be kept in the room beyond that which is absolutely necessary.

Under no circumstances should any friends or visitors enter a house in which there is a case of infectious illness, without the permission of the Medical Attendant.

The advice of the Health Visitor must be sought with regard to clothes used during the time of illness or in any way exposed to infection.

All bed and body linen as soon as removed from the sick person, and before being taken from the room, should be soaked in a solution of disinfectant for an hour or boiled in water for fifteen minutes.

The discharges from the nose, throat, ears and eyes, if any, are infectious. Clean rags or cotton wool should be used to wipe them away, and be burned after use.

A special set of utensils, as cups, glasses, plates, &c., should be set apart for the exclusive use of the patient, and after use they should be thoroughly washed in boiling water.

The dress of the person attending on the patient should be of washable material, and before leaving the house the attendant must change her clothes.

At the termination of the illness the house must be disinfected to the satisfaction of the Medical Officer of Health. (Infectious Disease Prevention Act, 1890, Section 5.)

Any person who shall cast, or permit to be cast, any infectious rubbish into any ash-pit without previous disinfection, shall be liable to a penalty not exceeding five pounds. (Infectious Disease Prevention Act, 1890, Section 13).

A case of Scarlet Fever should remain in isolation for a period of six weeks.

Children living in the same tenement who have previously suffered should continue to attend school.

Children living in the same tenement who have not previously suffered should keep away from school and Sunday School and from other children until ten days after the premises have been disinfected.

During an epidemic no children should be allowed to go to picture-houses or other crowded buildings, as they are very likely to catch the disease in these places.

T. S. Mc.INTOSH, M.D., D.P.H.,
*Medical Officer of Health.*

# DIPHTHERIA.

## Symptoms of Diphtheria.

The main signs of Diphtheria are :—

Sore Throat, Shivering, Headache, Feverishness, Enlarged Glands.

If any of these signs appear in any member of the family, you should *at once isolate him, send for the doctor, and pay strict attention to the following rules* if you will protect yourselves and your children.

## Rules for the Prevention of the Spread of Diphtheria.

Immediately a case is suspected to be Diphtheria, the sick person should be separated from the rest of the family.

If patient is not at once removed to hospital a room should be set apart for the reception of the patient, all curtains and bed hangings having been previously removed, and no furniture should be kept in the room beyond that which is absolutely necessary.

Under no circumstances should any friends or visitors enter a house in which there is a case of infectious illness, without the permission of the Medical Attendant.

The advice of the Health Visitor should be sought with regard to clothes used during the time of illness or in any way exposed to infection.

All bed and body linen as soon as removed from the sick person, and before being taken from the room, should be soaked in a solution of disinfectant for an hour or boiled in water for fifteen minutes.

The discharges from the nose, throat, ears and eyes, if any, are infectious. Clean rags or cotton wool should be used to wipe them away, and be burned after use.

A special set of utensils, as cups, glasses, plates, &c., should be set apart for the exclusive use of the patient, and after use they should be thoroughly washed in boiling water.

The dress of the person attending on the patient should be of washable material, and before leaving the house the attendant must change her clothes.

At the termination of the illness the house must be disinfected to the satisfaction of the Medical Officer of Health. (Infectious Disease Prevention Act, 1890, Section 5.)

Any person who shall cast, or permit to be cast, any infectious rubbish into any ash-pit without previous disinfection, shall be liable to a penalty not exceeding five pounds. (Infectious Disease Prevention Act, 1890, Section 13).

A case of Diphtheria should remain in isolation for four weeks, or until the Medical Attendant has proved the germ of the disease to be absent by swabbing the throat.

Children living in the same tenement should keep away from school and Sunday School and from other children until twelve days after the premises have been disinfected.

During an epidemic no children should be allowed to go to picture-houses or other crowded buildings, as they are very likely to catch the disease in these places.

T. S. Mc.INTOSH, M.D., D.P.H.,
*Medical Officer of Health.*

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## WHOOPING COUGH.

Whooping Cough is very infectious and is very dangerous unless great care is taken of the patient. There is grave danger of serious Bronchitis or Pneumonia developing, and many children die of this. However mild the case may appear to be the patient should be confined to bed, a doctor called in and his instructions carried out.

### Symptoms of Whooping Cough.

The main signs of Whooping Cough are :—

> Repeated Coughing, accompanied sometimes by vomiting. This is followed by the " whoop," and the child is left exhausted and the face is often swollen.

If any of these signs appear in any member of the family, you should *at once isolate him, send for a doctor, and pay strict attention to the following rules.*

### Rules for the Prevention of the Spread of Whooping Cough.

If Whooping Cough is prevalent, a cough occurring in a child who has not had Whooping Cough, should be considered suspicious and he should be separated from the rest of the family until he is well or it is certain that he is not developing Whooping Cough.

If possible, a room should be set apart for the reception of the patient, all curtains and bed hangings having been previously removed, and no furniture should be kept in the room beyond that which is absolutely necessary.

Under no circumstances should visitors enter a room in which there is a case of infectious illness, without the permission of the Medical Attendant.

The advice of the Health Visitor must be sought with regard to clothes used during the time of illness or in any way exposed to infection.

All bed and body linen, as soon as removed from the sick person, and before being taken from the room, should be soaked in a solution of disinfectant for an hour or boiled in water for fifteen minutes.

Whooping Cough is infectious in the early stages when there is a cough and before the " whoop " appears.

A special set of utensils, as cups, glasses, plates, &c., should be set apart for the exclusive use of the patient, and after use they should be thoroughly washed in boiling water.

The dress of the person attending on the patient should be of washable material, and before leaving the house the attendant must change her clothes.

Any person who shall cast, or permit to be cast, any infectious rubbish into any ash-pit without previous disinfection, shall be liable to a penalty not exceeding five pounds. (Infectious Disease Prevention Act, 1890, Section 13).

A case of Whooping Cough should remain in isolation for six weeks from the onset of the " whoop."

Children living in the same tenement who have previously suffered should continue to attend school.

Children living in the same tenement who have not previously suffered should keep away from school and Sunday School and from other children for twenty-one days after the onset of the first case.

During an epidemic no children should be allowed to go to picture-houses or other crowded buildings, as they are very likely to catch the disease in these places.

T. S. Mc.INTOSH, M.D., D.P.H.,
*Medical Officer of Health.*

## MEASLES.

*The parent or guardian of any child suffering or suspected to be suffering from **Measles** is required by law to inform the Medical Officer of Health.

Measles is very infectious and is very dangerous unless great care is taken of the patient. There is grave danger of serious Bronchitis or Pneumonia developing, and many children die of this.

However mild the case may appear to be the patient should be confined to bed, a doctor called in and his instructions carried out.

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*—This obligation has been rescinded since these leaflets were printed.

The main signs of Measles are :—

Headache, Shivering, *Sneezing, running nose and eyes,* Cough, Rash on face, body, arms and legs.

*A patient may infect others before the rash comes out, therefore when Measles is prevalent "colds in the head" should be viewed with suspicion.*

## Rules for the Prevention of the Spread of Measles.

Immediately a case is suspected to be Measles the sick person should be separated from the rest of the family.

If possible a room should be set apart for the patient, all curtains and hangings having been previously removed, and no furniture should be kept in the room beyond what is absolutely necessary.

Under no circumstances should visitors enter a room in which there is a case of Measles (or other infectious illness) without the permission of the medical attendant.

The advice of the Health Visitor should be asked with regard to clothes used during the time of illness, or in any way exposed to infection.

All bed and body linen, as soon as removed from the sick person and before being taken from the room, should be soaked in a disinfectant for an hour or boiled in water for fifteen minutes.

The runnings from throat, nose, ears or eyes are infectious. Clean rags or cotton wool should be used to wipe them away and should be at once *burned* after use.

A special set of utensils, such as cups, spoons, plates, etc., should be set apart for the use of the patient, and after use should be scalded with *boiling* water and thoroughly washed.

The dress of the person attending on the patient should be of washable material, and before leaving the house the attendant must change her clothes.

She should always wash her hands carefully after touching the patient or his bed.

Persons suffering from Measles, and children living in the same house who have not had the disease, should not attend school, picture-houses, Church or Sunday School, and should not enter neighbours' houses or mix with other children.

During an epidemic no children should be allowed to go to picture-houses or other crowded buildings, as they are very likely to catch the disease in these places.

It is an offence against the law to cast, or permit to be cast, any infectious articles into an ash-pit or ash-bin without previous disinfection.

T. S. Mc.INTOSH, M.D., D.P.H.,
*Medical Officer of Health.*

# BOROUGH OF WHITEHAVEN.

## EDUCATION COMMITTEE.

# ANNUAL REPORT

OF THE

# SCHOOL MEDICAL OFFICER

## For the Year 1919.

T. S. MC.INTOSH, M.A., M.D., M.R.C.P.E., D.P.H.,
*School Medical Officer.*

WHITEHAVEN:
Printed by W. H. MOSS & SONS LTD., 13, Lowther Street.
—
1920.

# TO THE WHITEHAVEN EDUCATION COMMITTEE.

Town Hall,
Whitehaven,
*9th March,* 1920.

Mr Chairman, Ladies and Gentlemen,

In presenting to you my first Annual Report (for the year 1919) I am to some extent hampered by the fact that I did not take up my duties till April, and that both the School Nurses have been appointed during the year, with the result that there is now no member of the School Medical Staff who was present at the beginning of the year. This has made it impossible to furnish quite so full a record of the year's work as I should have wished to do. In Table IV., for example, which gives statistics of the numbers of defects treated, I have been unable to distinguish children carried over from the previous year and those first coming under observation in 1919. This, however, is a matter of statistical interest rather than of practical importance.

The number of children examined during the year is shewn in Table I., at the end of the report. At the routine inspections 1,407 children were inspected. Of these 612 were entrants, mostly five years of age, 447 were intermediates, nearly all of ages eight or nine, and 348 were "leavers." It has been the custom to examine the "leaver" group between the ages of twelve and thirteen, but, as I think it advisable to examine the children as near the end of their school life as possible, I intend in future examining them between the ages of thirteen and fourteen. Since they are not at liberty to leave school until the end of the term in which they attain the age of fourteen, this should not give rise to any danger of their being missed. Each child will be examined during the term immediately following that in which he attains the age of thirteen.

In addition to the routine inspections, 221 special cases were examined and 281 children were re-examined. The "specials" are children who are referred to the School Medical Officer by Teachers, Nurses, the School Attendance Officer, parents and others. Some of these are seen when I attend at the schools for the routine inspections, others are seen at the School Clinic, where I attend once a week.

The numbers of defects found and the numbers for which treatment was obtained, with the results of the treatment, are shewn in Tables II. and IV. Table IV. is specially interesting, as it is a record not only of work done but of results achieved and of the extent to which the results fall short of the ideal. It has to be admitted that in some respects it is not a very satisfactory record.

Leaving out of account, for the moment, dental defects, uncleanliness and defects of clothing and footgear, of the 475 defects found to be in need of treatment only 269, or 40%, received treatment. The two classes of defect which have the heaviest incidence are also those for which the smallest proportion of children received treatment. These are defects of the nose and throat and defective vision and squint.

### DEFECTS OF THE NOSE AND THROAT.

In almost all cases this means Adenoids and Enlarged Tonsils. This is a very common condition in children and its cause is not definitely known, but it is most probably due to catarrhal conditions, which in their turn are probably related to unhygienic conditions of life, such as stuffy, ill-ventilated rooms and unsuitable clothing. It is stated by some that one cause of Adenoids is the baby's "soother," whose use is unfortunately so common. It certainly seems probable that if children were taught the use of the pocket handkerchief from an early age there would be fewer cases of Adenoids.

Of 153 defects of the nose and throat only twenty-five received treatment. It is difficult to get parents to realise the importance of having these conditions treated. Although serious harm may result from their presence—such as Bronchitis, Ear Disease and even Tuberculosis—the relation between cause and effect is not obvious, and the children may appear to the parents to be in good health, so that they are apt to turn a deaf ear to the suggestions of the Medical Officer and the Nurses, or at least to put off, indefinitely, taking the advice given them. The fact that in most cases the treatment required is operative increases their reluctance to undertake it.

### DEFECTIVE VISION AND SQUINT.

Of eighty-eight cases requiring treatment only seven received it. There appear to be two reasons for this unsatisfactory state of things. One is that not every doctor undertakes treatment of these conditions. Another is that in many cases the evil effects are not obvious and it is consequently difficult to persuade parents of the necessity of providing spectacles for the children. The cost of the spectacles also acts as a deterrent. It is, however, a matter of great importance that children who have visual defects should have them corrected by suitable spectacles. These not only improve the vision but also preserve it and prevent the progressive deterioration which is apt to take place if the defects are not corrected.

With regard to the other defects set out in Table IV. the high proportion (82%) of external eye diseases treated, and the relatively high proportion of skin (69%) and ear diseases (69%) treated, are accounted for by the fact that many of these cases are treated at the School Clinic. This is an indication of the value of that Institution.

Diseases of the lungs and non-pulmonary Tuberculosis show a very high proportion of cases treated. Here, again, free treatment for the Tubercular cases is provided by the County Council, at the Tuberculosis Dispensary. As shewn in Table II., of the twenty-one cases of lung disease ten were cases of Tuberculosis. All these children received treatment at the Dispensary and improved. One was sent to Stannington Sanatorium. Those cases of disease of the lungs which were not Tuberculosis were almost all Bronchitis, and this is a condition which there is not much difficulty in persuading parents to have treated.

Diseases of the Heart and Circulation also show a fairly high proportion (62%) treated. These being serious conditions, parents are, as a rule, willing to consult their own doctors about them.

Notices are sent to the parents (only a small proportion of whom attend the inspections) informing them of the defects found and advising them to consult their own doctor. When necessary this is followed up by visits from the nurse, who talks to the parents and tries to persuade them of the necessity of obtaining treatment. At the end of September one of our nurses left and was not replaced till the end of the year. Although Nurse Berry, who remained, made great efforts to cope with the work single-handed, and much credit is due to her, it was of course impossible that the work of "following-up" should be carried out so fully, with the result that probably a smaller number of children received treatment than would have been the case if the full staff had been working.

### CLOTHING AND FOOTGEAR.

In the case of sixty-two boys and fifty-three girls the clothing was found unsatisfactory. In the case of twenty boys and twenty-three girls the footgear was found unsatisfactory. fifteen boys and nineteen girls showing defects of both clothing and footgear. In the great majority substantial improvement was effected as the result of the nurse's visits to the parents, but I am unable to give exact figures. I have made arrangements for the records to be so kept that these figures will be available in future.

UNCLEANLINESS AND VERMINOUS CONDITIONS.

In addition to the children found suffering from defects of this nature, at the medical inspections a large number is discovered by the nurses, who pay surprise visits to the schools and examine all the children, class by class. Those found unclean are kept, so far as possible, under observation, till the condition is remedied, the more serious cases being excluded until cleansed. In this way 4,961 examinations (including re-examinations) were made and 404 children were found to be in need of treatment. In one case where there was persistent neglect to cleanse the child, his father was prosecuted under the attendance bye-laws and a fine of 10/- was imposed. In a large proportion of the cases marked improvement was obtained, but this work was much interfered with during the last three months of the year by the absence of a nurse, so that it was not possible to follow up all cases, and the records of results obtained are incomplete. I hope to be able to furnish exact records in 1920.

In this connection I should like to submit to you that the provision of

Since this report was written the necessary clerical assistance has been supplied by arrangement with another department.

annual reports but for the efficient carrying out of the work. In the absence of a fairly elaborate system of record-keeping, children would be apt to be lost sight of when they should be being kept under observation. Also it is very important that when a child comes before the Medical Officer the latter should have before him a full record of the child's previous medical history. I think that the figures of the number of children examined and the number requiring further attention show clearly that a great amount of clerical work is involved. If this is all done by the Medical Officer and the Nurses, much of their time is wasted.

TEETH.

The following table shows the dental work done by the Committee's Dental Officer, who devotes one whole-day per week to the work. He systematically inspects children of the 6—8 year old group in the schools and treats those found to be in need of treatment. One half-day per month is devoted to the treatment of "specials," *i.e.*, children of any age who are referred to him by the Medical Officer, the teachers or the parents, and who, as a rule, are suffering from toothache or extensive decay, or whose general health is suffering from their dental condition. The subject of teeth is fully dealt with in my special report on the new scheme, which is printed as an appendix to this report.

### TABLE OF DENTAL WORK DONE.

| | |
|---|---|
| Number of six to eight-year-old children examined | 248 |
| Number for whom treatment was necessary ... | 203 |
| Number actually treated (including children examined in the previous year, and "specials") ... ... | 509 |
| Number of attendances of children at the Clinic ... | 567 |
| Number of temporary teeth extracted ... ... | 548 |
| Number of permanent teeth extracted ... ... | 63 |
| Number of scalings and cleanings ... ... | 18 |
| Number of fillings in temporary teeth ... ... | 17 |
| Number of fillings in permanent teeth ... ... | 60 |

### MENTAL CONDITION.

None of the eight children suffering from mental defects received treatment. The treatment required is education in a special school or class. No provision has, as yet, been made for this, but it is contemplated under the new Scheme.

### INFECTIOUS DISEASES.

Much loss of attendance was caused by an epidemic of Measles in the last four months of the year. I did not recommend school closure as this does not seem likely to be of much use in a place like Whitehaven, where children have so many opportunities of close contact outside the schools. But as the schools were closed for a week's holiday, from the 11th to the 20th October, I advised trying the effect of keeping them closed for a further week. The idea was that the children who were infected just before the breaking-up of the schools might have time to develop the disease before the schools re-opened and so be kept at home. The incubation period being seldom more than fourteen days, a fortnight's closure ensured this, but, of course, it did not prevent those children from returning who were infected during the holidays and who were incubating the disease when the schools re-opened. I do not think that the closure had any effect on the course of the epidemic.

Whooping Cough, Mumps and Chicken-pox were moderately prevalent at different times during the year, but the epidemics were not serious.

Children suffering from infectious diseases and their contacts are excluded from school for the necessary periods. The rules for exclusion are given in an appendix to this report.

## THE WORK OF THE SCHOOL CLINIC.

The Nurses attend at the School Clinic every morning, and there treat a variety of minor ailments, such as cuts, bruises, septic conditions of the skin, inflammation of the eyes and discharging ears. Most valuable work is being done in this way and the work of the Clinic is steadily increasing. The increase in the number of children who attend is satisfactory as it shows that the Clinic is playing a useful part and that it is appreciated by parents and teachers, but it cannot increase much more without either seriously interfering with the other work of the nurses or requiring an addition to their number. Seven hundred and eighty-eight children attended during the year and 3,004 dressings were done. Practically every case may be regarded as a cure, although there are a few cases, such as those of discharging ears and some eye conditions, which tend to relapse. The School Medical Officer attends at the Clinic once a week and sees cases referred to him by the nurses, and supervises the work generally.

## THE NEW SCHEME UNDER THE EDUCATION ACT, 1918.

Considerable extensions of the school medical service are contemplated by the Board of Education under this Act. I reported fully to the Scheme Sub-Committee on this subject in a special report which is printed as an appendix to this report. I was much gratified by the fact that my recommendations were all accepted by the Committee, and I believe that much good will result from the proposed extensions.

There are a few observations that I should like now to add to the above-mentioned special report. In particular, I think that the decision of the Committee to undertake the treatment of Defects of Vision is a very wise one. I am glad to be able to say now that my estimate of the number of children who would require treatment for this condition appears to have been excessive. I wished to be on the safe side and stated that it would be unwise to make provision for fewer than two hundred cases per annum, whereas this year only eighty-eight have been discovered. That is a smaller number than usual and it would be rash to take it as an estimate of future needs, but very probably the average number will be between one hundred and one hundred and fifty.

With regard to teeth, also, I believe that the Committee have done rightly in deciding to undertake more work. The effect of the proposed arrangement will be that in future every child after attaining the age of six will have his or her teeth examined once a year, as long as he or she remains at school, and will receive treatment if necessary. It is to be hoped (and I think it may reasonably be hoped) that by this means decay will seldom advance very far before it is stopped and that the amount of treatment required each year will in most cases be small.

In the report of the Chief Medical Officer to the Board of Education, for the year 1918, there is included a report by a distinguished dentist, and I am pleased to find that his recommendations coincide almost exactly with mine, with the exception that he considers that the first inspection should take place at the age of five, instead of six.

When the Education Committee has in operation a thorough scheme of treatment of both Eyes and Teeth it will be carrying out two of the most important and valuable measures which can be included in the school medical service.

Another problem which at least equally requires to be dealt with is uncleanliness ; but it is an exceedingly difficult problem and I wish to give it further consideration before making any recommendations.

With regard to the Provision of Meals I feel that I am now in a position to speak more definitely than at the time of writing the special report, and further observation has led me to conclude that this is not necessary. The reasons which would appear to me to call for this particular measure are either—

(1) The existence of a considerable number of children who live too far from school to be able to go home for dinner, or

(2) The existence of a considerable number of children suffering from malnutrition, the result of insufficient or unsuitable feeding.

Practically all the children are able to go home for dinner except in the winter months, when the dinner interval is reduced from one-and-a-half to one hour. I do not favour this arrangement. It results in a certain number of children taking their dinners to school, and in other children having a hurried mid-day meal and requiring to set off for school, and perhaps to hurry to school, the moment their meal is finished.

The number of children found suffering from conditions of malnutrition was small and the malnutrition was in almost all cases associated with definite causes, such as adenoids or decayed teeth. The best method of dealing with these children would seem to be to treat the associated defects and, where necessary, to educate them at an open-air school. The provision of an open-air school has been adopted in the scheme.

Before leaving the subject of medical inspection and treatment I should like to record my thanks to the teachers for their most willing co-operation whenever I have found it necessary to ask for their assistance. The success of the school medical service depends to a great extent on the interest and co-operation of the teachers who are in daily association with the children and often have influence with the parents.

## Sanitary Condition of the School Premises.

This was fully dealt with in special reports which are printed as appendices to this report, and was under the consideration of a Sub-Committee at the end of the year. The condition of several of the schools cannot be said to be satisfactory. I fully realise that many of the conditions on which I reported adversely cannot be dealt with at once. Some of them cannot be satisfactorily dealt with except by building new schools on different sites. I thought it right, however, that you should have on record my opinion of all the school premises and of all the points on which they fall below a satisfactory standard. Many of the defects can be remedied at once and the others should be kept in mind, to be dealt with when a suitable opportunity arises. In the event of new schools being built the faults of some of the older schools can be avoided. It appears to be conclusively proved that delicate children derive great benefit from attendance at "open-air schools." If that is so there can be little doubt that open-air schools would be equally beneficial to healthy children and would prevent many cases of ill-health. It seems to me that it would be well worth while to consider how far the principles of the open-air school can be adopted in the case of new schools provided for normal children.

Leaving that question aside, there is one point on which I should like to insist, namely, the importance of good lighting of the class-rooms both by daylight and by artificial light. It is of the utmost importance that the windows of schools should be so placed and of such size as to illuminate every room and desk thoroughly, and it is also necessary to have satisfactory means of artificial lighting. There are many winter days on which artificial light is necessary even before 3 p m.

Deficient light is a fertile source of eye-strain and visual defect, and if it is necessary to provide treatment of these defects it is obviously no less necessary to do what can be done to prevent them.

The importance to the child of his surroundings in school does not appear to have been sufficiently realised at the time when many of the existing schools, throughout the country, were built. When it is remembered that, during a child's school-life, he spends one-eighth part of his time and about one-fifth of his waking hours in school, the influence of his surroundings at school is seen to be considerable.

Not only have ventilation, lighting and general sanitary conditions an effect on the bodily health, but gloomy and ugly surroundings have a depressing effect on the mind, while freshness and beauty improve the mental tone, have an elevating moral effect and, I believe, are reflected even in the physical condition.

I am,

Your obedient Servant,

T. S. Mc.INTOSH,
*School Medical Officer.*

# APPENDIX A.

# TABULAR STATEMENTS REQUIRED BY THE BOARD OF EDUCATION.

## TABLE I.—Number of Children Inspected 1st January, 1919, to 31st December, 1919.

### A.—"CODE" GROUPS.

| | ENTRANTS. | | | | | Intermediate Group. | LEAVERS. | | | | Grand Total of all Code Groups. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Age | 4 | 5 | 6 | Other Ages. | Total | 8 | 12 | 13 | 14 | Total | |
| Boys | 20 | 205 | 56 | 4 | 285 | 109 | 144 | 13 | ... | 157 | 551 |
| Girls | 19 | 222 | 63 | 23 | 327 | 185 | 164 | 26 | 1 | 191 | 703 |
| Totals | 39 | 427 | 119 | 27 | 612 | 294 | 308 | 39 | 1 | 348 | 1254 |

### B.—GROUPS OTHER THAN "CODE."

| | Intermediate Group (other than 8 years). | Special Cases.† | Re-examinations (*i.e.*, Number of Children Re-examined). |
|---|---|---|---|
| Boys | 59 | 119 | 129 |
| Girls | 94 | 102 | 152 |
| Totals | 153 | 221 | 281 |

† Under this head should be included all special cases which were medically inspected during the year, whether the inspection took place in the Schools or at the inspection Clinic, and from whatever source the cases were derived.

## TABLE II.—Defects found in course of Medical Inspection of School Children during the Year 1919.

| DEFECT OR DISEASE.<br>(1) | CODE GROUPS.<br>Number referred for Treatment.<br>(2) | <br>Number requiring to be kept under observation, but not referred for Treatment.<br>(3) | SPECIALS.<br>Number referred for Treatment.<br>(4) | <br>Number requiring to be kept under observation, but not referred for Treatment.<br>(5) |
|---|---|---|---|---|
| Malnutrition ... ... ... | 10 | 1 | ... | ... |
| Unclean Head ... ... ... | 38 | ... | 8 | ... |
| Unclean Body ... ... ... | 7 | ... | 2 | ... |
| Ringworm—Head ... ... | 2 | ... | 16 | ... |
| Body ... ... | 1 | ... | 6 | . |
| Scabies .. ... ... | 4 | ... | 2 | ... |
| Impetigo ... ... ... | 18 | ... | 11 | ... |
| Other Skin Affections ... ... | 4 | ... | 4 | ... |
| Defective Vision and Squint ... | 87 | ... | 1 | ... |
| External Eye Disease ... ... | 44 | ... | 1 | ... |
| Defective Hearing ... ... | 6 | .. | ... | ... |
| Ear Disease ... ... ... | 19 | ... | 4 | ... |
| Dental Disease (see page 70) ... | ... | ... | ... | ... |
| Enlarged Tonsils ... ... | 67 | 3 | ... | ... |
| Adenoids ... ... ... | 8 | ... | ... | ... |
| Enlarged Tonsils and Adenoids ... | 73 | .. | 5 | ... |
| Defective Speech ... | 5 | 1 | ... | ... |
| Organic Heart Disease ... .. | 3 | 4 | ... | ... |
| Functional Heart Disease ... ... | 2 | ... | ... | ... |
| Anæmia ... ... ... | 19 | ... | ... | ... |
| Pulmonary Tuberculosis (Definite) ... | ... | ... | 10 | ... |
| Suspected Pulmonary Tuberculosis... | 1 | ... | ... | ... |
| Chronic Bronchitis ... ... | 9 | ... | ... | ... |
| Other Respiratory Diseases ... | 1 | ... | ... | ... |
| Epilepsy ... ... ... | ... | ... | ... | ... |
| Chorea... ... ... ... | 1 | ... | ... | ... |
| Other Nervous Diseases ... ... | ... | ... | ... | ... |
| Non-Pulmonary Tuberculosis— | | | | |
| Glands ... ... ... | ... | ... | 3 | ... |
| Bones and Joints ... ... | .. | ... | .. | ... |
| Other forms ... ... | ... | ... | 1 | ... |
| Rickets ... ... ... | 3 | ... | ... | ... |
| Deformities ... ... ... | ... | ... | ... | ... |
| Other Defects or Diseases ... ... | 15 | 4 | ... | 1 |

## TABLE III.—NUMERICAL RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA IN 1919.

| | | | Boys. | Girls. | Total. |
|---|---|---|---|---|---|
| Blind (including partially Blind). | | Attending Public Elementary Schools | 1 | ... | 1 |
| | | Attending Certified Schools for the Blind | ... | ... | ... |
| | | Not at School | ... | .. | ... |
| Deaf and Dumb (including partially Deaf). | | Attending Public Elementary Schools | 1 | 1 | 2 |
| | | Attending Certified Schools for the Deaf | 3 | 3 | 6 |
| | | Not at School | ... | .. | ... |
| Mentally Deficient. | Feeble Minded. | Attending Public Elementary Schools | 3 | 5 | 8 |
| | | Attending Certified Schools for Mentally Defective Children | ... | ... | ... |
| | | Notified to the Local (Control) Authority during the year | ... | ... | ... |
| | | Not at School | ... | ... | ... |
| | Imbeciles. | At School | ... | ... | .. |
| | | Not at School | ... | ... | ... |
| | Idiots. | | | | |
| Epileptics. | | Attending Public Elementary Schools | ... | ... | ... |
| | | Attending Certified Schools for Epileptics | ... | ... | .. |
| | | Not at School | ... | ... | ... |
| Physically Defective. | Pulmonary Tuberculosis. | Attending Public Elementary Schools | 3 | 6 | 9 |
| | | Attending Certified Schools for Physically Defective Children | ... | ... | ... |
| | | Not at School | ... | ... | ... |
| | Other forms of Tuberculosis. | Attending Public Elementary Schools | 5 | ... | 5 |
| | | Attending Certified Schools for Physically Defective Children | ... | ... | ... |
| | | Not at School | ... | ... | ... |
| | Cripples (others than Tubercular.) | Attending Public Elementary Schools | 2 | ... | 2 |
| | | Attending Certified Schools for Physically Defective Children | .. | ... | ... |
| | | Not at School | ... | ... | ... |
| * Dull or Backward. | | Retarded 2 years | 64 | 51 | 115 |
| | | Retarded 3 years | 24 | 17 | 41 |

* Judged according to age and standard.

## TABLE IV.—Treatment of Defects of Children during the Year 1919.

| CONDITION. | Number of Defects found for which Treatment was considered necessary. | | | Number of Defects for which no report is available. | Number of Defects Treated. | Results of Treatment. | | | Number of Defects not Treated. | Percentage of Defects Treated. |
|---|---|---|---|---|---|---|---|---|---|---|
| | *From Previous Years. | *New | Total. | | | Remedied. | Improved. | Unchanged. | | |
| Clothing ... ... | ... | ... | 115 | † | † | ... | ... | ... | ... | ... |
| Footwear ... ... | ... | ... | 43 | † | † | ... | ... | ... | ... | ... |
| Cleanliness of Head } ... | ... | ... | 404 | ‡ | ‡ | ... | ... | ... | ... | ... |
| Cleanliness of Body } | | | | ... | ... | ... | ... | ... | ... | ... |
| Nutrition ... ... | ... | ... | 10 | 1 | 5 | 2 | 2 | 1 | 4 | 50 |
| Nose and Throat ... | ... | ... | 153 | 9 | 25 | 14 | 11 | ... | 119 | 16 |
| External Eye Disease ... | ... | ... | 45 | ... | 37 | 19 | 16 | 2 | 8 | 82 |
| Ear Disease ... .. | ... | ... | 23 | 1 | 16 | 10 | 6 | ... | 6 | 69 |
| Teeth § ... ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Heart and Circulation ... | ... | ... | 24 | ... | 15 | 4 | 8 | 3 | 9 | 62 |
| Lungs ... ... ... | ... | ... | 21 | ... | 19 | 8 | 10 | 1 | 2 | 94 |
| Nervous System ... ... | ... | ... | 1 | ... | 1 | .. | 1 | ... | ... | 100 |
| Skin ... ... ... | ... | ... | 68 | ... | 47 | 40 | 5 | 2 | 21 | 69 |
| Rickets ... ... | ... | ... | 3 | ... | 2 | ... | 2 | ... | 1 | 66 |
| Deformities ... ... | ... | ... | .. | ... | ... | ... | ... | ... | ... | ... |
| Tuberculosis, Non-Pulmonary | ... | ... | 4 | ... | 4 | .. | 4 | ... | ... | 100 |
| Speech ... ... | ... | ... | 5 | ... | 1 | ... | 1 | ... | 4 | 20 |
| Mental Condition ... | ... | ... | 8 | ... | 0 | ... | ... | ... | 8 | 0 |
| Vision and Squint ... | ... | ... | 88 | 4 | 7 | 6 | 1 | ... | 77 | 8 |
| Hearing ... ... | ... | ... | 6 | ... | 4 | ... | 3 | 1 | 2 | 66 |
| Miscellaneous ... .. | ... | ... | 16 | 1 | 7 | 5 | 2 | ... | 8 | 44 |
| Total (omitting Clothing, Footwear, Cleanliness) ... | ... | ... | 475 | 16 | 190 | 108 | 72 | 10 | 269 | 40 |

* See remarks on page 67. † See remarks on page 69. ‡ See remarks on page 70. § See page 70.

## TABLE V.—INSPECTION, TREATMENT, &c., OF CHILDREN DURING 1919.

| | |
|---|---|
| 1. The total number of Children medically inspected (whether Code Group, special or ailing child) ... | 1628 |
| 2. The number of Children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear) who require to be kept under observation (but not referred for treatment). ... ... | 13 |
| 3. The number of Children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, &c.) ... ... ... ... ... | 360 |
| 4. The number of Children in (3) who received treatment for one or more defects (excluding uncleanliness, defective clothing, &c.) ... ... ... | 155 |

# APPENDIX B.

Arrangements for exclusion from school of children suffering from Infectious Diseases, and of their "Contacts" (*i.e.*, children living in the same house as the sufferer):—

| DISEASE. | Period of Exclusion of Child suffering from the Disease. | Period of Exclusion of Contacts. | | |
|---|---|---|---|---|
| | | Infants. | Older Children. | |
| | | | Who have not had the disease. | Who have a *definite* history of having had the disease. |
| Measles.<br>Chicken-pox (Water-jags).<br>Mumps. | Until the Monday 3 weeks after the onset of the Disease. | Three weeks after the occurrence of a case in the house. | Same as for Infants. | Not excluded. |
| German Measles. | Until the Monday 3 weeks after the onset of the Disease. | Twenty-four days after the occurrence of a case in the house. | Same as for Infants. | Not excluded. |
| Whooping Cough. | Six weeks after the onset of the Whoop. | Three weeks after the occurrence of a case in the house. | Same as for Infants. | Not excluded. |
| Scarlet Fever. | Until certified fit to attend by the S.M.O. | Until 10 days after disinfection of the house. | Same as for Infants. | Not excluded. |
| Diphtheria. | Until certified fit to attend by the S.M.O. | Until 12 days after disinfection of the house | Same as for Infants. | Same as for Infants. |

In the case of any disease not mentioned above, the sufferer and contacts should be excluded pending the instructions of the School Medical Officer, and the case should be notified to him.

## APPENDIX C.

## Report of School Medical Officer on certain subjects referred to in the Board of Education's "Draft Suggestions for the Arrangement of Schemes under the Education Act, 1918," (p. 29, para. 8).

Mr. Chairman and Gentlemen,

In submitting this report I beg to remind you that it is less than three months since I took up my duties as School Medical Officer in Whitehaven. I have, therefore, been obliged to base much of the report, not on the results of my own observation, but on the records of my predecessors and on the experience of the country as a whole. I have, however, carefully avoided making decided statements of opinion or definite recommendations except where I feel convinced that these are based on sufficient and reliable data, and have indicated where I am relying on my own observation, and where on that of others.

The subject of the report is certain "Special Services" detailed in section 2, para. 8 of Schedule C of the abovementioned Board of Education Circular (1096) and the various headings are considered in detail in the order therein set forth.

### (*a*) School Medical Service.

(*i.*) *Proposals as to constitution, organisation and development of the School Medical Service.*

The School Medical Service is in the hands of the Authority's School Medical Officer, who is also Medical Officer of Health to the Borough and Rural District of Whitehaven, and who devotes his whole time to these offices. He is assisted by two nurses who spend half their time at school work, the other half being occupied in Maternity and Child Welfare work, under the Borough Scheme. This is a very satisfactory arrangement, as the same nurses are, in this way, engaged in attending to the health of the children of the Borough, whether below or of school age.

If any considerable extension of the School Medical Service be adopted, some extra nursing assistance will become necessary, as the time of the two nurses is fully occupied with their present duties.

A considerable saving of the Medical Officer's and nurses' time could, however, be effected by providing clerical assistance. This is very desirable even under present conditions and will be absolutely necessary if the School Medical Service is to be extended and developed. By this means a certain amount of extra work could be undertaken without increasing the medical or nursing staff.

(*ii.*) *Proposals for—*

### INSPECTION OF CHILDREN.

Arrangements have already been made for the Medical Inspection of the following groups of children, and I do not consider that anything further is necessary, in this respect :—

1. All entrants.
2. Intermediates, *i.e.*, children who have attained the age of 8 and have not been medically inspected since attaining that age.
3. Leavers, *i.e.*, children who have attained the age of 12 and have not been medically inspected since attaining that age. This group includes children of 12, 13 and 14 years of age.
4. Specials, *i.e.*, children specially referred for inspection by the Medical Officer, the Nurses, the Teachers, the School Attendance Officer, parents, guardians and any other persons interested in the children.

The inspections are carried out on school premises and in school hours, the usual number inspected being twenty to twenty-five children per session of two to two-and-a-half hours.

The inspections are carried out by the School Medical Officer, assisted in certain matters by the nurses and school teachers.

The parents are notified of the date in which children are to be examined and are invited to be present. Rather a small proportion of parents avail themselves of the invitation.

### FOLLOWING UP.

The nurses visit the homes of children who are found to be in need of treatment, advise the parents as to how they may obtain treatment and assist in the treatment when necessary.

### TREATMENT.

At present some minor ailments are treated at the School Clinic by the nurses under the general direction of the School Medical Officer. In some cases the nurses carry out treatment which has been prescribed by the child's private medical attendant.

I have recently began attending at the Clinic once a week, to advise as to treatment, where necessary (as well as to examine children referred by the School Attendance Officer).

*Eyes.*

At present a certain amount of treatment of inflammation of the eyes is done by the school nurses. Children with defective vision are referred to their own doctors. This in most cases means that nothing is done as few of the practitioners in Whitehaven undertake Refraction work and the prescribing of spectacles. Some children buy spectacles from an optician without a doctor's prescription. This cannot be considered satisfactory. A few children are taken to hospitals in Carlisle and Liverpool, where they obtain spectacles, but this method of obtaining treatment is unlikely ever to be resorted to to any extent.

The question of providing treatment for defective vision is therefore a very urgent one and I strongly recommend the Committee to make provision for it.

According to the Report of the School Medical Officer for 1918, the number of children known to be requiring treatment for defective vision in 1918 was 171. Of these, only 35 received treatment, leaving 136 still requiring treatment. Of these 171 children, 107 were discovered by inspection in the year 1918, the remainder being carried forward from previous years.

The Medical Officer to the Board of Education, in his Report for 1917, estimates that 5% to 10% of the children will require treatment.

The number of children attending public elementary schools in Whitehaven is 3,620. Therefore, on this basis, anything from 181 to 362 children are in need of treatment for this condition.

I am decidedly of opinion that the number discovered per annum will exceed the 107 discovered last year and that the numbers will be over the minimum limit indicated by the Medical Officer to the Board of Education (181).

In the short time in which I have been here I have been very much struck by the large proportion of children suffering from defective vision, and I feel sure that provision would have to be made for at least 200 children per annum. If satisfactory treatment is known to be available the result will almost certainly be that more children will be referred to the Medical Officer in addition to those discovered at Routine inspections. Moreover, I am convinced by what I have seen that a larger number than 107 will be discovered annually at the routine inspections. I think, therefore, that it would be wise to prepare for at least 200 children per annum.

These could be dealt with satisfactorily by means of a session of two hours, once a week. It is a great mistake to attempt to deal with more than five or six *new* cases per session. I have considerable experience of this work and know that it is both delicate and exacting work which is not satisfactorily performed unless fifteen to twenty minutes are given to each child to be examined. In addition to the five or six *new* cases there would be cases, previously examined, coming for re-examination after obtaining their glasses, and others coming for a preliminary vision-testing and instruction in the use of atropine ointment. Therefore, at least the amount of time I have indicated would be required.

It is, for many reasons, advantageous that this work should be done by the School Medical Officer, when possible, and, as I have the necessary experience, I recommend that it should be entrusted to me.

The Clinic at the Council School, Irish Street, is not suitable for an eye-clinic, but there is ample accommodation at the Child Welfare Centre, and the necessary adaptations could be carried out there at a small cost.

I recommend this new service to the earnest consideration of the Committee. It is one which is being undertaken by very many Education Authorities and it is one of the most valuable branches of school medical work. A child's whole future depends on its eyesight, and there is no question that the early provision of suitable spectacles, where necessary, does a great deal to preserve the eyesight and to prevent the defect from progressing.

### *Teeth.*

Very valuable work is being done under the dental treatment scheme of this Authority. The Dental Surgeon employed by the Education Committee devotes one whole day per week to this work. All children are examined by him between the ages of six and eight, that is at the critical period when the permanent teeth are coming in. Those who require treatment are treated by him at the School Clinic. He informs me that about 95% of the children examined require treatment.

Cases referred by the Medical Officer and teachers are also examined and treated, one afternoon a month being set apart for this.

The provision of dental treatment is probably the most useful measure which can be taken by an Education Authority on behalf of the health of the children, and I think that the Whitehaven Education Committee is to be congratulated on having been among the earliest of the smaller authorities to take this matter up. I consider that this service should be somewhat expanded.

The children who are treated between the ages of six and eight, according to the present scheme, are not seen by the Dentist again unless they are, more or less accidentally, brought to his notice. It would be a great advantage if they were re-examined once a year and treated when necessary. According to the present arrangement, any defects arising after the first examination are left untreated.

Dr. Crowley, a Board of Education Medical Inspector, who recently paid us a visit, expressed the view that as it was hopeless to attempt to undertake treatment for all the children at present requiring it we should concentrate on the six to eight-year-old group and let the others go. His reason for this was that there was more hope of doing permanent good to those whom we caught early. He went so far as to say that, for this reason, children discovered by the Medical Officer or teachers, at later ages, to be in need of treatment, should be neglected, rather than that the time of the Dentist should be diverted to them from the more useful work of attending to the six to eight-year-old group. He was strongly of opinion, however, that children who were treated at the age of six to eight should be re-examined and treated, if necessary, once a year for the rest of their school life.

While I agree with him to a certain extent, I do not think it logical or right to treat only those children who develop defects between the ages of six and eight and to do nothing for those who develop defects at nine or ten. The best procedure seems to me to be to examine all children once a year from the time they reach the age of six till they leave school, and to treat them when necessary.

This would mean that in future all children would have their teeth attended to at the age of six and once a year thereafter as long as they were at school. Treatment having been begun early, and the teeth being examined once a year, decay would not have time to progress far before it was stopped, and further treatment at each successive examination would in many cases not be necessary and would, in few cases be considerable in amount. The arrangement, therefore, would be economical. Moreover, these children would, in most cases, leave school with a good set of teeth instead of (as is so often the case at present) with most of their teeth in a state of more or less decay.

By this arrangement the work of the Dentist for this year would not be increased, but with each successive year more work would be required until it reaches its maximum, eight years hence, when the children now six years old would be leaving school. It would, therefore, be necessary to make arrangements for a certain additional amount of a dentist's time to be given each year until the maximum was reached. I think that one day per month added each year would cover the additional work. This would mean that next year the Dentist would be employed one day per week as at present, plus an extra day once a month. Eight years hence, he would be employed eight *extra* days per month or, in all, three days per week. When that stage was reached, or even before it, it would probably be both advantageous and economical to combine with some other local authority to employ a whole-time Dentist.

*Tonsils and Adenoids.*

At present, children are referred to their own doctors when they are found to be suffering from adenoids or enlarged tonsils. A very large proportion receive no treatment or insufficient treatment. No doubt this is largely because the parents are unwilling to pay fees which will represent a reasonable remuneration for the operative treatment required.

Treatment of these conditions is very urgently needed. The presence of adenoids and enlarged tonsils is responsible for a great amount of ill-health and mental impairment ; it almost certainly predisposes to Tuberculosis and it certainly, in many cases, leads to ear disease and permanent deafness.

According to your Medical Officer's annual report for 1918, 87 children required treatment, while 79, though not immediately requiring treatment, ought to be kept under observation. This undoubtedly means that a proportion of the latter number (79) would ultimately require treatment, and probably the proportion would be very considerable.

The estimate of the Medical Officer of the Board of Education in his annual report is that not less than 2% (*i.e.*, in Whitehaven 72 children) would be likely to require operative treatment. So far as my short experience of Whitehaven children goes, it indicates that the number likely to be recommended for treatment each year would very considerably exceed this figure (72). If, however, a satisfactory scheme of treatment is adopted the number requiring treatment in future years should decrease, since the children requiring treatment at the age of five or eight will receive treatment, and there will therefore be very few children of a higher age who will stand in need of it.

This, like eye-work, is work for which special training and experience are necessary, if the results are to be satisfactory. I do not claim to have the operative skill required and therefore do not recommend that the treatment should be undertaken by myself.

The alternative methods of providing for this form of treatment appear to be :—

1. That the Education Committee should contract with private practitioners to administer the treatment at the patients' homes.

   Very many of the patients' homes are quite unsuitable places for performing operations.

2. That the operations should be performed at a School Clinic, the Education Committee employing a part-time practitioner for this purpose.

   There are serious objections to this method. The children would have to remain at the Clinic for at least two hours after the operation. There is always the danger of hæmorrhage occurring after they are taken to their homes. As a doctor would not be on the spot this might lead to serious danger, and, even if no *fatal* cases occurred, such accidents would tend to bring the School Medical Service into disrepute.

   This "out-patient" scheme of treatment is one which is in operation in many hospitals, and I believe that the actual experience is that the number of accidents is almost negligible, but I feel very great disinclination to recommend it to the Committee, for the above reasons.

3. That the Education Committee make an agreement with the Whitehaven and West Cumberland Infirmary to undertake the treatment.

   This would, no doubt, involve payment to the Infirmary to cover, among other things, remuneration to the medical staff. It is unlikely that the medical staff would be prepared to do this work gratuitously.

4. A possible alternative is to combine in some way with the County Council for this purpose and I suggest that, before any decision is taken, I should discuss the matter with the County Medical Officer and find out the possibilities of satisfactory co-operation with the County Council.

*Minor Ailments.*

This includes cuts, bruises, septic sores and such skin conditions as Ringworm, Scabies and Impetigo.

Some of these conditions are already treated by the nurses at the Clinic, but I consider that the time has come to take this in hand more thoroughly. I recommend that we definitely undertake the whole of this work for all children who are not receiving satisfactory treatment under private arrangements.

The necessary ointments, &c., could be provided at the Clinic and directions given to the parents as to their proper use. Where necessary, the nurses would dress cases at the Clinic, and all the children would be kept under the supervision of the nurses and Medical Officer, until cured.

### *Remedial Exercises.*

I presume that this heading is intended to cover both ordinary physical drill designed to improve the general physique and muscular condition of all the children, and *special* exercises intended to remedy certain defects such as mouth-breathing and curvature of the spine.

I am not in a position to say, as yet, to what extent these latter special exercises are required, but I have no doubt that there is a considerable number of children attending the schools who would benefit by them.

I certainly consider, and recommend, that physical exercises should form a part of the school curriculum of all healthy children. This is a measure of that prevention which is proverbially better than cure.

### *Medical Supervision of Employed Children* (*Section* 15, *Education Act*, 1918).

Employed children should be submitted to examination by the School Medical Officer once a term, when he visits the school which they attend. He would report to the Authority all children whose health appeared to be suffering from their employment, and the Authority could then take action under this section of the Act.

### *Uncleanliness.*

The nurses periodically visit each school and examine all the children to discover uncleanly and verminous conditions. In the case of those exhibiting these conditions the parents are informed and are given directions as to how the condition may be remedied (I am at present having printed, what I consider to be, improved directions to parents for remedying these conditions). If the parents fail to remedy the condition proceedings can be taken under the Children Act, 1908.

Much good work is already being done in this way, but I consider that more frequent inspections should be made. That, however, is impossible with the present nursing staff. Short of providing a cleansing and disinfecting station it does not seem possible to take more effective measures than these.

I have been very much impressed by the very large proportion of children, whom I have examined, who are in a verminous condition. I look on it as an exceedingly grave matter. The effect on the children's health is in many cases serious ; it also is a serious deterrent to their education and it must undoubtedly have a very deleterious effect on their self-respect and moral welfare. It is a subject which deserves very serious consideration, but I do not yet feel in a position to make any more definite recommendations.

*Dealing, in consultation with the Sanitary Authority, with infectious diseases and other matters of common interest.*

The School Medical Officer being also Medical Officer of Health there is complete co-ordination of the two authorities, and the necessary measures are taken.

*Medical Investigations as to dull and backward children.*

This will be carried out by the School Medical Officer.

*Ascertaining what children (whether in attendance at school or not) are blind, deaf, physically defective or epileptic for the purposes of the Special Acts.*

This should be done by the School Medical Officer. All suspected cases discovered by the School Attendance Officer, the Nurses, the Teachers, or otherwise coming to the notice of the Education Committee or its officers, being referred to the School Medical Officer for examination.

The Board of Education's approval (under the Elementary Education Defective and Epileptic Children Act, 1899, Section 1 (3) of your School Medical Officer, should be applied for.

*Ascertaining what children are defective within the meaning of the Mental Deficiency Act,* 1913, *and notifying suitable cases to the Local Control Authority in accordance with the Mental Deficiency (Notification of Children) Regulations,* 1914.

This should be done by the School Medical Officer.

### (*b*) **Special Schools.**

(*i.*) *and* (*ii.*) *Blind and Deaf Children.*

At present such children are sent to Residential Schools by the Education Committee. This arrangement is satisfactory.

(*iii.*) *Physically defective children including delicate children, for whom an open-air school is desirable.*

An open-air school is specially valuable for children suffering from Tuberculosis and for the children who are often labelled "pretubercular," *i.e.*, suffering from such conditions as malnutrition, anæmia, enlarged glands, adenoids, &c., conditions which are often found to precede the development of recognisable Tuberculosis. There are, however, few delicate children who would not benefit by education in such a school.

An open-air school is so constructed and arranged that the children in suitable weather can spend the whole day in the open-air and, at the same time, airy, well-lighted and ventilated shelters are provided for wet weather. But it is not only from the fresh-air that they draw benefit. The whole curriculum is arranged with a view to their physical condition and needs. The classes are small, and thus much individual attention can be given to the children. There is always a nurse attached to the school. The hours of work are short, with frequent intervals, and the children have a two-hours' rest (in the open-air when the weather permits) lying down, in the middle of the day. Meals are provided at school.

Probably the new Bransty building site would be the best for such a school.

Physically defective children for whom special provision is needed, but for whom an open-air school is not specially required, include non-tubercular cripples, cases of heart diseases and rheumatism.

There are probably very few of these for whom the open-air school would be unsuitable, but if necessary in-door accommodation could be provided for them at the open-air school.

The question of an open-air school is one of very great importance. Indeed, so convinced am I of its value, that I would urge the Committee, in the event of their building new schools, even for normal children, to consider very carefully how far the principles of the open-air school could be made applicable to them. It is, I think, obvious that if open-air is a useful remedial measure it is likely to be a still more useful preventive measure, and I should like to see less money spent on bricks and mortar and more on open space when schools are being constructed.

### (*iv.*) *Mentally Defective Children.*

I am not in a position to estimate the amount of accommodation required for this purpose. The suggestion of the Committee's Secretary, that a Mentally Defective department should be provided in connection with a new school at Kells appears to me to be a good one.

It would, however, probably be convenient to have all the schools or departments for abnormal children grouped together, and for this purpose I think the Bransty site would be best.

Many mentally defective children benefit by attendance at an open-air school.

Transport would have to be provided for some of the children attending either of the special schools and school meals would have to be provided. It would almost certainly, therefore, be most convenient to have them situated near each other and probably best to have them forming departments of one school.

(*v.*) *Epileptic Children.*

Any such children who were unsuitable for attendance at one or other of the above-mentioned special schools would probably best be dealt with by sending them to residential institutions.

(*c*) *Provision of Meals.*

This should not be considered solely from the point of view of providing food for the children of necessitous parents.

It has been found to be a valuable measure for improving the health of certain children, and I submit that it is from that point of view that it should be looked at.

Many children whose parents can afford to feed them are suffering from malnutrition on account of *unsuitable* feeding, and are found to improve enormously when properly fed at school.

The Education Committee has not only the power but the duty (under the Education, Provision of Meals Acts, 1906 and 1914) of recovering the cost of school meals from the parents, except where circumstances warrant the remitting of this cost. I am aware that it is often found difficult in practice to recover money to which one has a legal right, but the above-mentioned Acts clearly show that this provision of meals at school is to be looked upon as a measure directed in the first instance towards improving the health of the children, rather than a measure of poor-relief.

I commend this subject to the consideration of the Committee, but, until I have been in Whitehaven for a sufficient time to form an opinion as to the number of children who appear to be in need of school meals, I do not feel disposed to make any recommendations on the subject.

I am, Mr. Chairman and Gentlemen,

Your obedient Servant,

T. S. Mc.INTOSH,
*School Medical Officer.*

## APPENDIX D.

## Reports on Sanitary Condition of School Premises (extracted from Monthly Reports of the School Medical Officer.

### *St. James' Boys' School.*

17th June, 1919.

On 21st May I inspected the School Buildings at St. James' Boys' School and found the following conditions, which require attention :—

Walls, floors and ceilings throughout the School are dirty. The School requires a thorough cleaning and fresh paint and distemper.

Many of the seats and desks are of bad pattern, the desks being too low and the seats without backs.

More windows should be made capable of being opened.

The cloak-room is in a very bad condition. The plaster and woodwork of the walls is dilapidated. Fresh paint and distemper are required.

The coat-hangers are dilapidated.

There is old, ragged and unsavoury clothing hanging in the cloak-room, some of which looks as if it had hung there untouched for a considerable period.

The cloak-room as a whole is dirty. The inside of the cupboard in which surgical dressings are kept is dirty.

*Playground.*—The paving is defective in places. The w.c. and urinal accommodation does not appear to be sufficient. There are three w.c.'s and three urinal places for about 240 boys.

The surface of the slabs in the urinal is broken in places, and the urinal is dirty and foul smelling.

### *St. James' Girls' School.*

22nd July, 1919.

On 26th June, 1919, I inspected St. James' Girls' School and noted the following points :—

Staircase—Some of the steps defective.

Whole school requires thorough cleaning and re-decorating. (I understand that this will be done if anyone can be got to undertake it).

The ordinary routine cleaning appears to be very inefficiently carried out.

Sanitary conveniences.—The w.c. compartments require a thorough cleansing out and fresh white-washing. There are only four w.c.'s for 280 pupils, and no separate accommodation for teachers. This is very unsatisfactory.

If this report is read along with my report on St. James' Boys' School, dated 17/6/19, it will be seen that St. James' School as a whole is far from satisfactory. It would be greatly improved by thorough cleaning and re-decorating. and especially by more frequent and more thorough routine cleansing, but I do not think it could ever be made satisfactory for the number of pupils at present attending it.

The sanitary accommodation is very insufficient, and the absence of suitable conveniences for the teachers is very unsatisfactory.

A minor point is the absence of any convenience for Medical Inspection. In the Boys' School it is carried out in the cloakroom, which is anything but a suitable place. There is, however, no other place where it can be done. In the Girls' School it is done in one half of a class-room, while a class is sitting in the other half. The quietness of the class speaks very highly for the discipline of the School and reduces the inconvenience from the point of view of the Medical Officer to a minimum, but it is not a satisfactory arrangement. I suggest that the medical inspections of scholars attending this school be carried out at the School Clinic. I am aware that such an arrangement is not altogether satisfactory, but cannot think of a better suggestion.

### *St. James' Boys' School.*

18th November, 1919.

See my report dated 17th June, 1919, to which I would only add—

1. There is no satisfactory provision for artificial lighting.
2. The school is clean and freshly distempered.
3. The walls of the cloak-room have been repaired.
4. The old clothing has been removed from the cloak-room.
5. The w.c.'s have been whitewashed.

### *St. James' Girls' School.*

See my report of 22nd July, 1919, to which I would only add—

1. There is no satisfactory provision for artificial lighting.

2. There are a few seats and desks of an unsatisfactory pattern.
3. The school is clean and freshly distempered.
4. The w.c.'s have been whitewashed.

### *St. James' Infants' School.*

One class-room is lighted only by skylights. This is not satisfactory either for the purposes of lighting or ventilation.

The w.c.'s are of an obsolete metal trough pattern, and the seats are too high for infants.

The number provided for girls is insufficient.

These should be replaced by a better type and the number brought up to the standard of the Building Regulations.

The school is clean.

### *St. Begh's School.*

Not enough windows capable of opening.

No satisfactory provision for artificial lighting.

Accommodation insufficient for the number of scholars.

Some desks of an old unsatisfactory pattern.

The school is clean.

Playground too small.

Ashpit should be replaced by dustbins.

Urinals—slabs need repairing.

W.C. accommodation insufficient. W.C.'s of trough pattern, but I do not consider it necessary that they should be replaced immediately as they are reasonably satisfactory.

### *SS. Gregory and Patrick School.*

The situation of the school is bad. It is surrounded by high walls and buildings, with the result that the lighting by daylight is poor.

The construction of the building is, however, fairly satisfactory from a sanitary point of view.

No satisfactory provision for artificial lighting.

Many desks of old pattern.

School clean and freshly distempered.

Urinal slabs in need of repair.

The w.c.'s are of trough pattern, but I do not consider it necessary to recommend replacing them at present. The apertures in the seats are set too far back. This should be altered.

A proper dustbin for ashes and refuse is required.

### *Council Mixed and Infant Schools.*

Schools clean but need distempering.

Lighting by daylight and ventilation good.

Artificial lighting is by electricity, and is satisfactory.

Cloak-rooms. Pegs are arranged on both sides of racks with the result that clothes hanging on opposite sides can touch each other. A partition of wire netting or other material should be interposed.

Urinals and w.c. satisfactory.

Playground. Paving defective—rain-water stands in pools.

### *Trinity Mixed and Infant Schools.*

These schools are much hemmed in by other buildings and are also badly designed, with the result that the natural lighting and ventilation are poor.

No satisfactory provision for artificial lighting.

The schools are clean but the distemper is peeling off the walls and the plaster is broken in places.

Insufficient clothes-hanging accommodation.

Playground too small—paving very defective.

Ashpits should be done away with and replaced by dustbins.

Urinal. Repairs required where slate slabs meet cement flooring.

The w.c.'s are satisfactory, but some require new seats. The number provided for girls is insufficient.

### *Crosthwaite Memorial Mixed and Infant Schools.*

The number of windows in the N.E. wall is not sufficient, with the result that the natural lighting is not satisfactory. As this is a good building I recommend that the question of providing more window-space be considered.

Artificial lighting arrangements are not satisfactory.

The waste-pipes from Girls' and Infants' hand-basins discharge on the ground at the side of a gully instead of into the gully. This should be attended to.

Playground—surface uneven. In wet weather there must be many pools of water.

The arrangements for surface water drainage are not satisfactory. The playground is wet and muddy in places, even in dry weather—notably at South corner of the building and at the entrance to the Infants' latrines. This seems to be due to the fact that there is high ground over-hanging the playground. Drainage should be provided to remedy the dampness.

Boys' and Infants' urinals. Channels should be provided along the foot of all four walls. In the Boys' urinal there is a channel along one wall only—in the Infants' along two walls only.

There is not sufficient w.c. accommodation for girls.

Three new seats are required.

### *Earl of Lonsdale Mixed and Infant Schools.*

Accommodation seems hardly sufficient for the number of scholars.

Schools clean but needs fresh distemper and repair of plaster.

The natural lighting of this school would be good if the windows were all of transparent glass, many of them are of obscured glass. The wire-netting over the windows also obscures the light.

Two stoves are dilapidated.

No satisfactory provision for artificial lighting.

More pegs required in cloak-rooms.

In the case of the Boys' and Girls' cloak-rooms racks should be provided. In the Infants' many broken pegs should be replaced.

Playground—too small.

Dustbins and arrangements for removal of refuse required.

The w.c.'s are of a very unsatisfactory trough pattern and should be replaced and three additional w.c.'s provided for girls.

Infants' urinal has rough walls—smooth slabs should be provided. The floor is very uneven and should be repaired.

In my opinion Trinity School is not capable of being made satisfactory.

SS. Gregory and Patrick's, on account of its situation, will never be a satisfactory school.

The others are all capable of great improvement, but in the case of St. Begh's and St. James' Boys' and Girls' Schools considerable alterations would be required to make the schools suitable or the number of scholars attending them.

There are, however, many minor defects, as indicated in this report, which can and ought to be remedied.

One very serious defect which applies to all the schools except the Council School and, perhaps, St. James' Infant School, is the absence of proper provision for artificial lighting. This is a fertile source of eye-trouble and should not be allowed to continue. The cost of lighting the schools by electricity would not be a very serious expenditure, and, in my opinion, ought to be undertaken.